

Phase One Public Outreach & Involvement Program

Appendices

photo by David Berger

JANUARY 2006

prepared by:



Moore Iacofano Goldman, Inc.



METROPOLITAN
TRANSPORTATION
COMMISSION



Caltrain



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APPENDIX A - MEDIA ADVISORIES & ANNOUNCEMENTS

MTC Email Invite (Sent to 5,200 email addresses)

Come share your vision for the Bay Area rail system!

The Metropolitan Transportation Commission, BART, Caltrain, and California High-Speed Rail Authority need your help developing a Regional Rail Plan for the Bay Area. The Plan will look at improvements and extensions of railroad, rapid transit, and high-speed rail services for the near (5 to 10 years), intermediate (10 to 25 years), and long-terms (beyond 25 years). Please join us at one of six community workshops being held in November and December.

Topics for discussion include:

- * Improving the Bay Area's existing rail system
- * Locations for new rail extensions and train stations
- * Rail sharing between passenger and freight trains
- * Planning for growth - building new homes near rail
- * Evaluating initial rail concepts

In addition, these workshops are intended to serve as "scoping" meetings for, and contribute to the preparation of, the California High-Speed Rail Authority's Bay Area to Central Valley High-Speed Train Program EIR/EIS.

Workshops are planned throughout the Bay Area and in the Central Valley - see below for the times and locations. A flyer announcing these outreach workshops is attached to this email as well.

For each workshop, we are offering two sessions. For your convenience, the daytime session is repeated in the evening. You may join us at either time.

Session One: Starts at 3 p.m. and Ends at 5 p.m.

- * Open House: 3-4 p.m.
- * Presentation/Discussion: 4-5 p.m.

Session Two: Starts at 6 p.m. and Ends at 8 p.m.

- * Open House: 6-7 p.m.
- * Presentation/Discussion: 7-8 p.m.

Tuesday, November 29th - Oakland Workshop

Joseph P. Bort MetroCenter, Larry D. Dahms Auditorium, 101 Eighth Street

Transit Connections: BART (Lake Merritt Station); AC Transit (11 from Piedmont or Montclair; 59 or 59A from Montclair; 62 from East or West Oakland; 88 from Berkeley); Amtrak (C.L. Dellums Station at 2nd and Alice Streets)

Wednesday, November 30th - San Jose Workshop

New San Jose City Hall - Council Wing, Community Room W120, 200 East Santa Clara Street

Transit Connections: Santa Clara VTA Trains; Closest Light Rail Station: Santa Clara; VTA Bus

Connections: 22, 23, 63, 64, 65, 66, 68, 72, 73, 81, 82, 85, 180, 304, 305, 522, Highway 17

Express and DASH.

Thursday, December 1st - San Francisco Workshop

Hiram Johnson State Bldg, Auditorium, 455 Golden Gate Avenue

Transit Connections: BART (Civic Center Station), Muni Metro Light Rail Lines, Muni Bus Routes: 5, 6, 7, 9, 21, 26, 66, 71 and 71L

Monday, December 5th - Livermore Workshop

Livermore Public Library, Community Room A + B, 1188 S. Livermore Avenue

Transit Connections: Wheels Bus Routes 11, 11L and 14

Tuesday, December 6th - Modesto Workshop

Double Tree Hotel, Ballrooms 1,2 and 3, 1150 Ninth Street

Transit Connections: Amtrak and Modesto Area Express Routes: 21, 22, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 37, 38, 39, 41, 42

Thursday, December 8th - Suisun City Workshop

Suisun City Hall, Council Chambers, 701 Civic Center Boulevard

Transit Connections: Amtrak and Fairfield/Suisun Transit System Route 5

Here is a link to the Regional Rail Plan's project Web site:

<http://www.bayarearailplan.info/>

All Aboard!

**Come share your vision for
the Bay Area rail system!**

**Regional Rail Plan Community Workshops –
November and December 2005**

The Metropolitan Transportation Commission, BART, Caltrain, and California High-Speed Rail Authority need your help developing a Regional Rail Plan for the Bay Area. The Plan will look at improvements and extensions of railroad, rapid transit, and high-speed rail services for the near (5 to 10 years), intermediate (10 to 25 years), and long-terms (beyond 25 years). Please join us at one of six community workshops being held in November and December.

Topics for discussion include:

- Improving the Bay Area's existing rail system
- Locations for new rail extensions and train stations
- Rail sharing between passenger and freight trains
- Planning for growth – building new homes near rail
- Evaluating initial rail concepts

In addition, these workshops are intended to serve as "scoping" meetings for, and contribute to the preparation of, the California High-Speed Rail Authority's Bay Area to Central Valley High-Speed Train Program EIR/EIS.

Workshops are planned throughout the Bay Area and in the Central Valley – see the reverse side for times and locations.

**Help lay the track for the future of our Regional Rail System.
Your next big idea could be just around the bend!**



Meeting Schedule For Each Location

Session One: 3–5 p.m.

- Open House: 3–4 p.m.
- Presentation/Discussion: 4–5 p.m.

Break: 5–6 p.m.

Session Two: 6–8 p.m.

- Open House: 6–7 p.m.
- Presentation/Discussion: 7–8 p.m.

Note: For your convenience, the afternoon session is repeated in the evening. Please join us at either time.

For more information about the Regional Rail Plan, visit www.bayarearailplan.info

Meeting Locations and Dates

Oakland – Tuesday, November 29

Joseph P. Bart MetroCenter, Larry D. Dahms Auditorium, 101 Eighth Street

Transit Connections: BART (Lake Merritt Station); AC Transit (TT from Piedmont or Montclair; 59 or 59A from Montclair; 62 from East or West Oakland; 88 from Berkeley); Amtrak (C.L. Dellums Station at 2nd and Alice Streets)

San Jose – Wednesday, November 30

New San Jose City Hall – Council Wing, Community Room W120, 200 East Santa Clara Street

Transit Connections: Santa Clara VTA Trains; Closest Light Rail Station: Santa Clara; VTA Bus Connections: 22, 23, 63, 64, 65, 66, 68, 72, 73, 81, 82, 85, 180, 304, 305, 522, Highway 17 Express and DASH.

San Francisco – Thursday, December 1

San Francisco Civic Center Complex, Hiram Johnson Building, Auditorium, 455 Golden Gate Avenue

Transit Connections: BART (Civic Center Station), Muni Metro Light Rail Lines, Muni Bus Routes: 5, 6, 7, 9, 21, 26, 66, 71 and 71L

Livermore – Monday, December 5

Livermore Public Library, Community Room A + B, 1188 S. Livermore Avenue

Transit Connections: Wheels Bus Routes 11, 11L and T4

Modesto – Tuesday, December 6

Double Tree Hotel, Ballrooms 1,2 and 3, 1150 Ninth Street

Transit Connections: Amtrak and Modesto Area Express Routes: 21, 22, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 37, 38, 39, 41, 42

Suisun City – Thursday, December 8

Suisun City Hall, Council Chambers, 701 Civic Center Boulevard

Transit Connections: Amtrak and Fairfield/Suisun Transit System Route 5





METROPOLITAN
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NEWS RELEASE

MEDIA ADVISORY

For Immediate Release

CONTACT: Catalina Alvarado 510.817-5783
Patrick Hannan 510.817-5739

All Aboard!!!

Community Workshops to Develop Bay Area Regional Rail Plan

*November/December Meetings to Be Held in
Oakland, San Jose, San Francisco, Livermore, Modesto & Suisun City*

OAKLAND, Calif., Nov. 17, 2005 . . . Bay Area residents are invited to share their vision for the Bay Area regional rail system at a series of public workshops being held in November and December. The meetings are the first step in developing the Regional Rail Plan – a comprehensive blueprint to improve and extend passenger railroad, rapid transit and high-speed rail service over the next 50 years.

Hosted by the Metropolitan Transportation Commission, BART, Caltrain and the California High-Speed Rail Authority, the meetings will help create a vision for rail in the Bay Area, including possible rail extensions, new routes and stations, and establish criteria for evaluating those proposals. The first round of meetings will seek comments on:

- Improving the Bay Area's existing rail system;
- Identifying locations for new rail extensions and train stations;
- Managing rail sharing between passenger and freight trains;
- Planning for growth around rail; and
- Developing evaluation criteria.

- more -

The California High-Speed Rail Authority will also be launching its environmental study on proposed high-speed rail routes between the Bay Area and the Central Valley. Light refreshments will be offered at each meeting. For more information, contact the Regional Rail Project Office at 510.464.6151 or visit <http://bayarearailplan.info>.

MTC is the nine-county San Francisco Bay Area's transportation planning, coordinating and financing agency.

Bay Area Regional Rail Plan Community Workshops

- **Tuesday, November 29 - Oakland**
3:00-5:00 p.m. – First Session, 6:00-8:00 p.m. – Second Session
Joseph P. Bort MetroCenter, Larry D. Dahms Auditorium
101 Eighth Street, Oakland
- **Wednesday, November 30 – San Jose**
3:00-5:00 p.m. – First Session, 6:00-8:00 p.m. – Second Session
New San Jose City Hall – Council Wing, Community Room W120
200 East Santa Clara Street, San Jose
- **Thursday, December 1 – San Francisco**
3:00-5:00 p.m. – First Session, 6:00-8:00 p.m. – Second Session
Hiram Johnson State Building, San Diego Room
455 Golden Gate Avenue, San Francisco
- **Monday, December 5 – Livermore**
3:00-5:00 p.m. – First Session, 6:00-8:00 p.m. – Second Session
Public Library, Community Room A & B
1188 S. Livermore Avenue, Livermore
- **Tuesday, December 6 – Modesto**
3:00-5:00 p.m. – First Session, 6:00-8:00 p.m. – Second Session
Double Tree Hotel, Ballrooms 1, 2 & 3
1150 Ninth Street, Modesto
- **Thursday, December 8 – Suisun City**
3:00-5:00 p.m. – First Session, 6:00-8:00 p.m. – Second Session
Suisun City Hall, Council Chambers
701 Civic Center Boulevard, Suisun City

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NEWS RELEASE

For Immediate Release

CONTACT: Catalina Alvarado 510.817-5783
Patrick Hannan 510.817-5739

Public Proposes Bold Rail Concepts at Initial Bay Area Regional Rail Workshop

*Seven More Meetings Planned in November and December
Meetings Added in San Carlos & Santa Rosa*

OAKLAND, Calif., Nov. 30, 2005 . . . A new rail line across the Richmond-San Rafael Bridge, elevated downtown trains and high-speed freight service from Oakland to Tracy were just a few of the ideas proposed at the first Bay Area Regional Rail Plan workshop held yesterday at the MetroCenter in Oakland. Additional public proposals are expected at other meetings being over the next two weeks, including tonight in San Jose and tomorrow in San Francisco.

Approximately 120 people braved the rain to share their vision for a regional rail network in the Bay Area. Perspectives varied widely on a number of rail concepts, with some people urging a direct high-speed rail connection between San Francisco and Los Angeles and others advocating for a Central Valley route ending in Oakland. BART expansion to the outer suburbs topped the list of some participants, but still others wanted better rail service between dense urban areas, including rail lines across the Bay. Still others suggested replacing trains with dedicated express buses.

Each rail proposal will be evaluated for technical merit, economic feasibility and environmental impact.

"The regional rail plan is a blueprint for the next 50 years. We want to use the public's knowledge of their own communities to create the best possible plan for the entire region," said Doug Kimsey, planning director for the Metropolitan Transportation Commission. "Tuesday's meeting demonstrated that the public is a willing and engaged partner in this effort."

Hosted by the Metropolitan Transportation Commission (MTC), BART, the California High Speed Rail Authority and Caltrain, the workshops are the first step in developing the Regional Rail Plan – a comprehensive blueprint to improve and extend passenger railroad, rapid transit and high-speed rail service over the next 50 years.

Tuesday's workshop was the first of eight rail meetings being held around the Bay Area and in the Central Valley (see below for a complete list). For more information please visit: <http://bayarearailplan.info>.

- More -

Remaining Bay Area Regional Rail Plan Community Meetings

Workshops – Note: To foster community participation, each workshop will feature two identical sessions – afternoon and evening. Choose the time that is most convenient.

- **Wednesday, November 30 – San Jose**
3-5 p.m. – First Session, 6-8 p.m. – Second Session
New San Jose City Hall – Council Wing, Community Room W120
200 East Santa Clara Street, San Jose
- **Thursday, December 1 – San Francisco**
3-5 p.m. – First Session, 6-8 p.m. – Second Session
Hiram Johnson State Building, Auditorium
455 Golden Gate Avenue, San Francisco
- **Monday, December 5 – Livermore**
3-5 p.m. – First Session, 6-8 p.m. – Second Session
Public Library, Community Room A & B
1188 S. Livermore Avenue, Livermore
- **Tuesday, December 6 – Modesto**
3-5 p.m. – First Session, 6-8 p.m. – Second Session
Double Tree Hotel, Ballrooms 1, 2 & 3
1150 Ninth Street, Modesto
- **Thursday, December 8 – Suisun City**
3-5 p.m. – First Session, 6-8 p.m. – Second Session
Suisun City Hall, Council Chambers
701 Civic Center Boulevard, Suisun City

Presentations

- **Thursday, December 8 – San Carlos**
6 p.m. – Open House, 7 p.m. – Presentation
City and County Association of Governments of San Mateo County
San Mateo County Transit District Office
1250 San Carlos Avenue, Second Floor Auditorium, San Carlos
- **Monday, December 12 – Santa Rosa**
3 p.m. – Presentation
Sonoma County Transportation Authority – Board of Directors
Sonoma County Permit and Resource Management Department
Planning Commission Hearing Room, 2550 Ventura Avenue, Santa Rosa

MTC is the nine-county San Francisco Bay Area's transportation planning, coordinating and financing agency.

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NEWS RELEASE

For Immediate Release

CONTACT: Catalina Alvarado 510.817.5783
Patrick Hannan 510.817.5739

Valley Residents Urged to Weigh in on High-Speed Rail *Modesto Workshop to Define Priorities for Regional Rail Projects*

OAKLAND, Calif., Dec. 1, 2005 . . . Should the High-Speed Rail system proposed for California include a Modesto-Bay Area link? How about expanding the existing systems like Altamont Commuter Express (ACE) or BART service into the Valley? These are just a few of the ideas to be discussed Tuesday, Dec. 6 at a Regional Rail Plan Community Workshop to be held at the DoubleTree Hotel, 1150 Ninth Street, in downtown Modesto. The meeting is open to all members of the public, and area residents' comments and proposals are warmly encouraged.

The Modesto workshop is one of eight such meetings being hosted around the region by the Metropolitan Transportation Commission (MTC), BART, the California High Speed Rail Authority and Caltrain. The workshops are the first step in developing the Regional Rail Plan – a comprehensive blueprint to improve and extend passenger railroad, rapid transit and high-speed rail service.

"The regional rail plan is a blueprint for the next 50 years," explained Doug Kinsey, planning director for MTC. "We want to use the public's knowledge of their own communities to create the best possible plan for the entire region."

The workshop series kicked off Tuesday, Nov. 29, with an Oakland meeting that attracted some 120 people who braved the rain to share their vision for a regional rail network. Perspectives varied widely on a number of rail concepts, with some people urging a direct high-speed rail connection between San Francisco and Los Angeles and others advocating for a Central Valley route ending in Oakland. BART expansion to the outer suburbs topped the list of some participants, while others suggested replacing trains with dedicated express buses. Other proposals included establishing high-speed freight service between the Port of Oakland and the San Joaquin Valley.

"The Oakland meeting demonstrated the public is a willing and engaged partner in this effort," commented Kinsey. Members of the public are expected to propose other ideas for new or improved

- more -

passenger and freight rail service at the Modesto workshop and at other meetings being held over the next two weeks (see below for a complete list). Each proposal will be evaluated for technical merit, economic feasibility and environmental impact. For more information please visit:

<http://bavarearailplan.info>.

Remaining Regional Rail Plan Community Meetings

- **Monday, December 5 – Livermore**
3-5 p.m. – First Session, 6-8 p.m. – Second Session
Public Library, Community Room A & B
1188 S. Livermore Avenue, Livermore
- **Tuesday, December 6 – Modesto**
3-5 p.m. – First Session, 6-8 p.m. – Second Session
Double Tree Hotel, Ballrooms 1, 2 & 3
1150 Ninth Street, Modesto
- **Thursday, December 8 – Suisun City**
3-5 p.m. – First Session, 6-8 p.m. – Second Session
Suisun City Hall, Council Chambers
701 Civic Center Boulevard, Suisun City

Presentations

- **Thursday, December 8 – San Carlos**
6 p.m. – Open House, 7 p.m. – Presentation
City and County Association of Governments of San Mateo County
San Mateo County Transit District Office
1250 San Carlos Avenue, Second Floor Auditorium, San Carlos
- **Monday, December 12 – Santa Rosa**
3 p.m. – Presentation
Sonoma County Transportation Authority – Board of Directors
Sonoma County Permit and Resource Management Department
Planning Commission Hearing Room, 2550 Ventura Avenue, Santa Rosa

MTC is the transportation planning, financing and coordinating agency for the nine-county San Francisco Bay Area.

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Bart Bulletin

(50,000 Copies to 34 Stations)



BART Bulletin

News of Special Interest to BART Customers

Come share your vision for the Bay Area rail system!

November and December 2005

Regional Rail Plan Community Workshops

BART is working with the Metropolitan Transportation Commission, Caltrain, and the California High-Speed Rail Authority to develop a Regional Rail Plan for the Bay Area, as called for in 2004 when voters approved Regional Measure 2. The Regional Rail Plan will develop a long-range vision for a passenger and freight rail system that serves the San Francisco Bay Area and adjacent regions.

In addition, these workshops are intended to serve as “scoping” meetings for, and inform development of, the California High-Speed Rail Authority’s “Bay Area to Central Valley High-Speed Train Program Environmental Impact Report/Environmental Impact Statement.”

Note: The afternoon session is repeated in the evening. Please join us at either time. The first hour of each workshop is an open house, followed by a presentation/ group discussion in the second hour.

For more information about the Regional Rail Plan, visit: www.bayarearailplan.info

Meeting Locations and Dates

Oakland – Tuesday, November 29

Session One: 3 – 5 p.m. ♦ Session Two: 6 – 8 p.m.
Joseph P. Bort MetroCenter, Auditorium, 101 Eighth St.
*Transit Connections: BART (Lake Merritt Station);
AC Transit (11 from Piedmont or Montclair; 59 or 59A
from Montclair; 62 from East or West Oakland; 88 from Berkeley);
Amtrak (C.L. Dellums Station at 2nd and Alice Streets)*

San Jose – Wednesday, November 30

Session One: 3 – 5 p.m. ♦ Session Two: 6 – 8 p.m.
New San Jose City Hall – Council Wing, Community
Room W120, 200 East Santa Clara Street
*Transit Connections: Santa Clara VTA Trains; Closest Light Rail Station:
Santa Clara; VTA Bus Connections: 22, 23, 63, 64, 65, 66, 68, 72, 73,
81, 82, 85, 180, 304, 305, 522, Highway 17 Express and DASH.*

San Francisco – Thursday, December 1

Session One: 3 – 5 p.m. ♦ Session Two: 6 – 8 p.m.
San Francisco Civic Center Complex, Hiram Johnson
Building, Auditorium, 455 Golden Gate Avenue
*Transit Connections: BART (Civic Center Station), Muni Metro Light
Rail Lines, Muni Bus Routes: 5, 6, 7, 9, 21, 26, 66, 71 and 71L*

Livermore – Monday, December 5

Session One: 3 – 5 p.m. ♦ Session Two: 6 – 8 p.m.
Livermore Public Library, Community Room A + B,
1188 S. Livermore Avenue
Transit Connections: Wheels Routes 11, 11L and 14

Modesto – Tuesday, December 6

Session One: 3 – 5 p.m. ♦ Session Two: 6 – 8 p.m.
Double Tree Hotel, Ballroom 1-3, 1150 Ninth Street
*Transit Connections: Amtrak and Modesto Area Express Routes: 21, 22,
24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 37, 38, 39, 41, 42*

Suisun City – Thursday, December 8

Session One: 3 – 5 p.m. ♦ Session Two: 6 – 8 p.m.
Suisun City Hall, Council Chambers;
701 Civic Center Blvd.
*Transit Connections: Amtrak and
Fairfield/Suisun Transit System Route 5*



San Francisco Bay Area Rapid Transit District ■ 300 Lakeside Drive ■ Oakland, CA 94612 ■ 510-464-6000



Regional Rail Plan Community Workshops

The Metropolitan Transportation Commission, Caltrain, BART and the California High-Speed Rail Authority will be hosting public workshops to help develop a Regional Rail Plan for the Bay Area.

Topics for discussion include:

- Improving the Bay Area's existing rail system
- Locations for new rail extensions and train stations
- Rail sharing between passenger and freight trains
- Planning for growth
- Evaluating initial rail concepts

Meeting dates and locations:

San Jose – Wednesday, Nov. 30
San Jose City Hall
200 East Santa Clara St.
Council Wing, Community Room W120

San Francisco – Thursday, Dec. 1
Civic Center Complex
455 Golden Gate Ave.
Hiram Johnson Building Auditorium

Each meeting will offer identical afternoon and evening sessions, to accommodate different schedules. Session #1 will take place from 3pm-5pm. Session #2 will take place from 6pm-8pm.

For additional meeting dates and locations, or for more information about the Regional Rail Plan, visit www.bayarearailplan.info.

11/18/05

C/CAG

CITY/COUNTY ASSOCIATION OF GOVERNMENTS
OF SAN MATEO COUNTY

*Atherton • Belmont • Brisbane • Burlingame • Colma • Daly City • East Palo Alto • Foster City • Half Moon Bay • Hillsborough • Menlo Park
Millbrae • Pacifica • Peninsula Valley • Redwood City • San Bruno • San Carlos • San Mateo • San Mateo County • South San Francisco • Woodside*

REGIONAL RAIL STUDY OPEN HOUSE/ PRESENTATION

DATE: Thursday, December 8, 2005

TIME: 6:00 P.M. - 7:00 P.M.

PLACE: San Mateo County Transit District Office
1250 San Carlos Avenue, Second Floor Auditorium
San Carlos, CA

PARKING: Available adjacent to and behind building.
Please note the underground parking garage is no longer open.

PUBLIC TRANSIT: SamTrans Bus: Lines 261, 295, 297, 390, 391, 397, PX, KX.
CalTrain: San Carlos Station

OPEN HOUSE - Project Overview Boards for Review and Staff to
Respond to Questions

PRESENTATION - As part of the regular C/CAG Board Meeting Doug
Kimsey, MTC, will provide an overview of the
Regional Rail Study

PRESENTED BY:

Metropolitan Transportation Commission
City/ County Association of Governments of San Mateo County
Caltrain
Bart

555 COUNTY CENTER, 8TH FLOOR, REDWOOD CITY, CA 94063 PHONE: 650.999.1420 FAX: 650.361.8227



SCTA Sonoma
County
Transportation
Authority

Keeping Sonoma County Moving

Board of Directors

AGENDA

December 12, 2005 – 3:00 p.m.

Sonoma County Permit & Resource Management Department
Planning Commission Hearing Room - 2550 Ventura Avenue, Santa Rosa, California

Directors

Paul Kelley, Chair
Sonoma County

Robert Jehn, V. Chair
Coville

Steve Allen
Wilder

Bob Blanchard
Santa Rosa

Stanley Cohen
Sonoma

Patricia Gilardi
Cotati

Mike Healy
Petaluma

Linda Kelley
Sebastopol

Mike Kerms
Sonoma County

Jake Mackenzie
Roberts Park

Lisa Schaffner
Healdsburg

Tire Smith
Sonoma County

Suzanne Wilford
Executive Director

520 Mendocino Avenue
Suite 240
Santa Rosa, CA 95401
Ph: 707-585-5373
Fax: 707-585-6370

ITEM

- I. Public Comment**
- II. Consent Item – ACTION**
 - A. Minutes of the November 14, 2005 Meeting*
 - B. Go21 letter of Support*
 - C. Prop 42 Letter of Support*
 - D. Vacation Accrual Agreement for Sean Gause*
- III. Reports – INFORMATION/ACTION**
 - A. Executive Committee Report (Chair Kelley)
 - B. SMART Report (Director Jehn)
 - C. MTC Report (Director Blanchard)
 - D. SCTA Staff Report –
 1. Relocation Plan*
 2. Bicycle/Pedestrian Plan Update – Kick-off in January
- IV. Measure M Report – DISCUSSION/ACTION**
 - A. Approve Funding Agreements*
 - B. Revenue/Expenditure Report*
 - C. Financial Advisor RFP Status/Schedule
 - D. Design RFP – Ranked listing of qualified firms and direction to negotiate*
- V. Regional Rail Plan Presentation by MTC* – DISCUSSION**
- VI. Cycle 3 Federal Funds for Local Road Rehabilitation* – DISCUSSION/ACTION**
- VII. Funding and Phasing Issues on Hwy 101 Projects – DISCUSSION/ACTION**
 - A. 2006 SHOPP Update
 - B. Status of Hwy 101 environmental documents
- VIII. Update on Caltrans Projects – DISCUSSION/ACTION**
 - A. Route 12 to Steele Lane Bid Opening
 - B. Wilfred Avenue Design*
 - C. East Washington and Aux Lane Funding Plan*
 - D. Other projects
- IX. Community Based Transportation Plan RFP* – DISCUSSION/ACTION**

- X. SCTA Administrative Code* – **DISCUSSION/ACTION**
- XI. Other Business/Director Announcements – **DISCUSSION**
- XII. Adjourn – **ACTION**

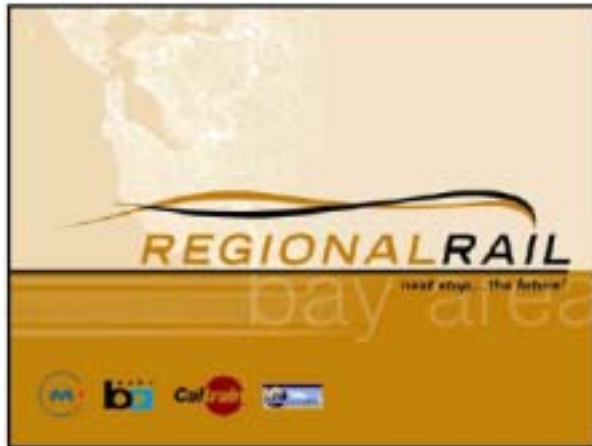
* Materials attached

The next **SCTA** meeting will be held **January 9, 2006**.

DISABLED ACCOMMODATION: If you have a disability that requires the agenda materials to be in an alternate format or that requires an interpreter or other person to assist you while attending this meeting, please contact SCTA at least 72 hours prior to the meeting to ensure arrangements for accommodation.

Copies of the full agenda packet are available at: www.sctairfb.org

APPENDIX B POWERPOINT PRESENTATION ON REGIONAL RAIL PLAN



Workshop Agenda

- Regional Rail Plan -- study purpose
- Bay Area to Central Valley High-Speed Train Program Environmental Impact Report / Environmental Impact Statement
- Group discussion

DEVELOP REGIONAL RAIL

Study Purpose

To develop a long-range vision for a passenger and freight rail system that serves the San Francisco Bay Area and adjacent regions.

DEVELOP REGIONAL RAIL

We need your help to ...

- Define a vision for rail in the Bay Area and neighboring regions
- Brainstorm possible service extensions and rail routes
- Sketch out study evaluation criteria
- Identify issues for Bay Area to Central Valley High-Speed Train Program EIR/EIS

DEVELOP REGIONAL RAIL

Planning for Our Needs

The Plan will examine ways to:

- Increase capacity for passenger and freight rail
- Improve connections between passenger trains and other transit
- Coordinate rail investment around transit-friendly communities
- Preserve and acquire rights-of-way for future passenger rail services
- Develop options to consolidate rail activities to provide better, more efficient rail services
- Bring proposed high-speed rail train into Bay Area

DEVELOP REGIONAL RAIL

Planning Process – A Team Effort

- Study Partners
 - MTC, BART, Caltrain, & CHSRA
- Regional Rail Steering Committee
 - Passenger and freight railroad operators, county congestion management agencies & other local partners
 - Neighboring regional agencies
- Advisory Group
- Community

DEVELOP REGIONAL RAIL

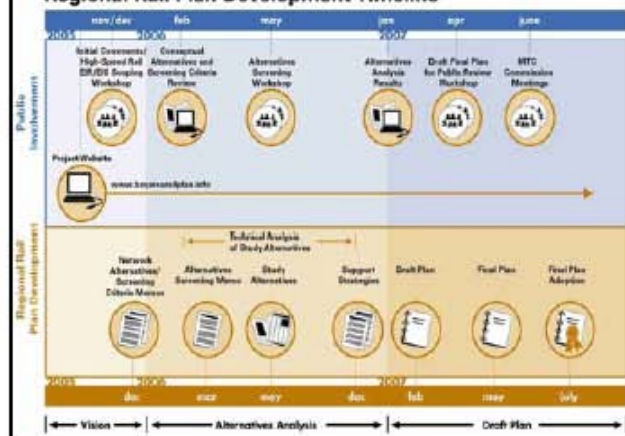
Rail Plan Step-by-Step



- **Phase 1 – Vision**
 - develop conceptual alternatives and screening criteria
- **Phase 2 – Alternatives Analysis**
 - screen conceptual alternatives and identify final alternatives for further evaluation
- **Phase 3 – Draft/Final Plan**
 - perform technical analysis and prepare draft and final plans identifying regional and high-speed rail extensions and services for near-, mid-, and long-terms

bay area REGIONAL RAIL

Regional Rail Plan Development Timeline



Base Network

- MTC's Resolution 3434 identifies nine new rail extensions



Base Network cont'd

- Adopted rail projects from neighboring regions



Evaluating Project Ideas



bay area REGIONAL RAIL

What's Your Vision of Regional Rail?

- Share your vision for rail in your community, across the Bay Area and in neighboring regions
- Help us identify evaluation criteria to assess proposed rail ideas
- Identify issues to be considered in the Bay Area to Central Valley High-Speed Train Program EIR/EIS



bay area REGIONAL RAIL

Draft Evaluation Criteria

- Maximize ridership/revenue potential
- Maximize rail transit connectivity and accessibility
- Maximize service to and promotion of transit-oriented development
- Allow for incremental implementation
- Minimize operating and capital costs
- Minimize impacts to freight service
- Minimize impacts to low-income/minority areas
- Minimize impacts to natural resources



Contact:

Ashley Nguyen
Metropolitan Transportation Commission
510.817.5809
anguyen@mtc.ca.gov
www.bayarearailplan.info



next stop... the future!
bay area



APPENDIX C: POWERPOINT PRESENTATION ON BAY AREA TO CENTRAL VALLEY HIGH-SPEED TRAIN EIR/EIS



SCOPING MEETING


Bay Area to Central Valley High-Speed Train Program EIR/EIS





PURPOSE OF STATEWIDE SYSTEM

- The purpose of the proposed HST system is to provide a reliable mode of travel, which links the major metropolitan areas of the state, and delivers predictable and consistent travel times.
- A further objective is to provide an interface with commercial airports, mass transit and the highway network and relieve capacity constraints of the existing transportation system as increases in intercity travel demand in California occur, in a manner sensitive to and protective of California's unique natural resources.


NEED FOR STATEWIDE SYSTEM

- Future Growth in Demand for Intercity Travel
- Capacity Constraints That Will Result in Increasing Congestion and Travel Delays
- Unreliability of Travel Stemming from Congestion and Delays, Weather Conditions, Accidents, and Other Factors Affecting Quality of Life and Economic Well-Being of Residents, Businesses, and Tourists in California
- Increasing Frequency of Accidents on Intercity Highways and Passenger Rail Lines in Congested Corridors of Travel
- Reduced Mobility as a Result of Increasing Demand on Limited Modal Connections Between Major Airports, Transit Systems, and Passenger Rail in the State
- Poor and Deteriorating Air Quality and Pressure on Natural Resources as a Result of Expanded Highway and Airports





HIGH-SPEED TRAINS

High-Speed Trains Would:


- Use state-of-the-art electrically powered steel-wheel-on-mesh-rail technology with automatic brake control.
- Be fully grade separated (no crossovers or sidings crossing on tracks), have features to prevent derailment, and be completely double tracked with four tracks at intermediate stations to provide express services.
- Carry up to an estimated 66 million passengers annually by 2020.
- Use technology that has been extensively proven in Japan for over 40 years and Europe for over 20 years and is the safest, most reliable form of transportation.
- Achieve maximum speeds of over 200 mph.








BAY AREA TO CENTRAL VALLEY STUDY AREA



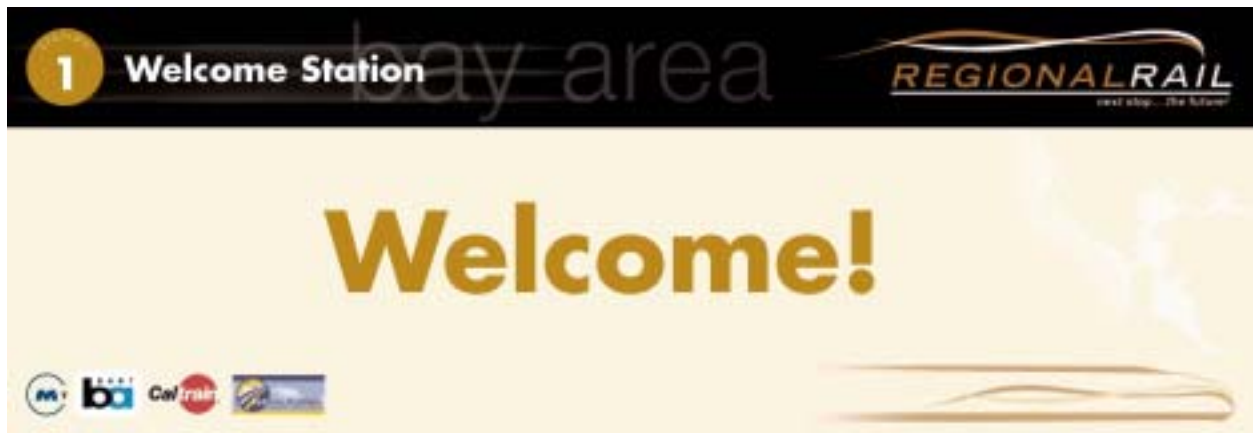
PROGRAM EIR/EIS OUTCOMES

- NEPA and CEQA Documentation
- Preferred Bay Area to Central Valley Corridor/General Alignment and Station Locations
- Identify Corridor/Right-of-Way Preservation Needs
- Streamline Environmental Process for Future Implementation



APPENDIX D – EXHIBIT BOARDS ON REGIONAL RAIL PLAN





Laying the Tracks for Bay Area Regional Rail

Study Purpose

The Regional Rail Plan will develop a long-range vision for a passenger and freight rail system that serves the San Francisco Bay Area and adjacent regions.

Regional Rail Plan—Next Stop: The Future!

Fed up with long, congested commutes, public transit service cuts and round-the-clock traffic, Bay Area voters approved Regional Measure 2 in 2004. This measure sought to address congestion in toll bridge corridors around the bay and enhance the convenience and reliability of the region's public transit system, including the passenger rail system.

As required by the voters, this effort includes the Bay Area Regional Rail Plan—a comprehensive blueprint to improve and extend passenger railroad, rapid transit and high-speed rail service today and for years to come.

Planning Principles

In October 2005, the study sponsors and other rail operators met to brainstorm some initial planning guidelines. Ten themes emerged as common planning principles, as follows:

1. Develop a visionary rail plan for the next 50 years.
2. Respect existing rail service improvement plans.
3. Think like a passenger—ensure convenient, efficient service.
4. Connect transit and trains.
5. Offer adequate capacity.
6. Separate conventional freight and passenger services.
7. Use proven technology.
8. Incorporate cost-effective solutions.
9. Develop a comprehensive funding plan.
10. Transportation and land use are linked.

These themes and input from public workshops will be the basis to generate rail alternatives and evaluation criteria to test those alternatives.




Planning Process—A Team Effort


Why Are We Here?


This workshop is the first step in defining a vision for rail in the Bay Area, brainstorming possible service extensions and new rail routes, and sketching out study evaluation requirements.

Who's Involved? What's the Process?

The Metropolitan Transportation Commission, the Bay Area Rapid Transit (BART) District, the Peninsula Corridor Joint Powers Board (Caltrain) and the California High-Speed Rail Authority are jointly developing the Regional Rail Plan — but with plenty of help.

 **Bay Area residents** along with neighboring communities are invited to help develop the Regional Rail Plan at a series of community workshops, including this one.

 A **regional rail steering committee** of county congestion management agencies and local passenger and freight rail operators, including Amtrak, Capitol Corridor, Altamont Commuter Express (ACE) and Union Pacific Railroad and Burlington Northern-Santa Fe Railway are providing direction on the study.

 An **advisory group** of academics, environmentalists and business people is lending technical expertise to the steering committee. Neighboring regional agencies and county government associations are also participating.

The steering committee will review and comment on the plan before it is sent to the **Metropolitan Transportation Commission** for final action in July 2007.

Rail Plan Step-by-Step

The Regional Rail Plan effort is divided into three phases.

Phase 1 – Vision: Develop conceptual alternatives and screening criteria.

Phase 2 – Alternatives: Rigorously screen the initial alternatives and identify final alternatives for further evaluation.

Phase 3 – Draft Plan: Perform detailed technical evaluations of the study alternatives and prepare draft and final plans identifying regional and high-speed rail extensions and services for the near-, intermediate- and long-terms.



Additional stakeholder meetings and public workshops will be held at study milestones.



Improving What We Have, Planning for Our Needs

The Regional Rail Plan study area includes the nine Bay Area counties:

- Alameda
- Contra Costa
- Marin
- Napa
- San Francisco
- San Mateo
- Santa Clara
- Solano
- Sonoma

As well as parts of these counties:

- Yolo
- Sacramento
- Placer
- San Joaquin
- Stanislaus
- San Benito
- Santa Cruz
- Monterey

The plan will look at improvements and extensions of railroad, rapid transit, and high-speed rail services for the near- [5 to 10 years], intermediate- [10 to 25 years], and long-term [25 to 50 years].

More specifically, the plan will examine ways to:

- Incorporate passenger trains into existing rail systems;
- Improve connections between passenger trains and other transit, such as light-rail, shuttles and buses;
- Expand the regional rapid-transit network; increase rail capacity for both passenger and freight rail systems;
- Coordinate rail investment around transit-friendly communities and businesses;
- Formulate strategies for preserving and acquiring "rights-of-way" for future rail service;
- Identify urban locations where passenger rail could stimulate redevelopment;
- Consider various rail technologies; and
- Develop options to consolidate rail services and activities to provide better, more efficient rail service.

The plan also will provide a detailed analysis of potential high-speed train routes between the Bay Area and the Central Valley. The goal of this part of the study is to identify which of the alignment alternatives merit further evaluation in the California High-Speed Rail Authority's "Bay Area to Central Valley High-Speed Train Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS)."



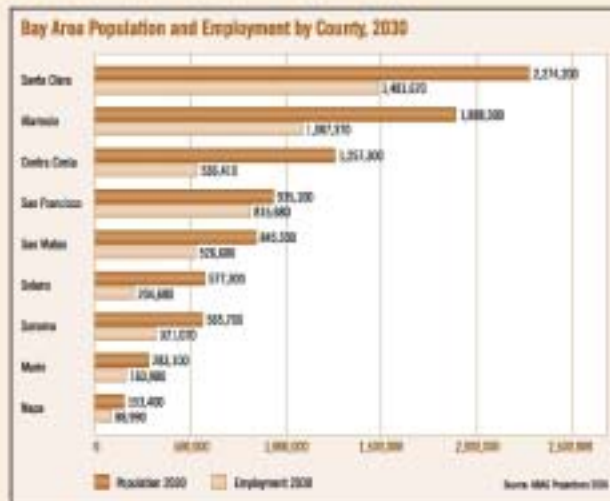


Land Use – Transportation Links

PLANNING FOR FUTURE GROWTH

A Growing Region

The Bay Area consists of nine counties and is home to nearly 7 million people and 3 million jobs.



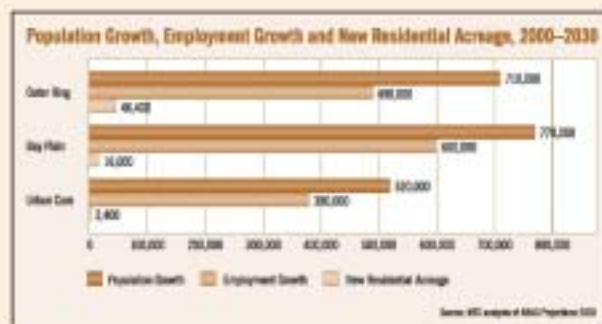
Our region is expected to grow to 8.8 million residents by 2030 – a 29% increase from 2000, or an average of 0.7% growth a year. Over this same period, annual job growth will likely slow to 1.3%, reaching a total of 5.2 million jobs in 2030.

Where We Live

There are three land-use patterns in the Bay Area:

- The **urban core** is in the center: San Jose, San Francisco, and Oakland.
- The **bay plain** is the suburban communities surrounding these cities between the Bay and the hills.
- The **outer ring** is the more distant suburbs and agriculture lands that make up the rest of the nine-county area.

The urban core is expected to accommodate about 25% of the anticipated population increase. The remaining population growth will be split about evenly between the outer ring and the bay plain.



Smart Growth for a Better Future

As part of the 2002 Bay Area Smart Growth Strategy/Regional Livability Footprint, over 1,000 community leaders came together at a series of workshops to craft a new regional "footprint" to guide future development.

Participants favored an alternative regional growth strategy that:

- Located most new growth in each county's largest cities,
- Created pedestrian- and transit-oriented communities along an expanded transit network; and
- Brought housing to existing employment areas and jobs to areas that are mostly residential.

Although much work remains, the vision developed represents a new way of thinking about the region's growth, specifically: Whether and how it can change to meet the needs of future generations without sacrificing the quality of life we enjoy today. This alternative portrays a Bay Area yet to be, envisioned by residents who confronted the challenge of determining how and where to grow. These residents designed a "smart growth" alternative strong enough to channel decision-making and flexible enough to incorporate adjustments.

MTC Transit-Oriented Development Policy

In July, the Metropolitan Transportation Commission adopted a "Transit-Oriented Development" (TOD) policy for regional transit expansion projects to:

- Improve the cost-effectiveness of regional investments in new transit expansions;
- Ease the Bay Area's chronic housing shortage;
- Create vibrant new communities; and
- Preserve regional open space.



The policy ensures that transportation agencies, local governments, Bay Area residents and builders work together on developments that better support transit.

Transit-Oriented Development Policy - The Basics

There are three key elements of the regional TOD policy, which apply only to certain transit extensions funded by MTC:

- Requirements for planning housing developments around new transit routes and stations;
- Community-friendly transit station-area plans anticipating and addressing future land-use challenges; and
- Corridor working groups that bring together local congestion management agencies, city and county planning staff, transit agencies, and other stakeholders to define expectations, timelines, roles and responsibilities for transit projects.

Bay Area Gridlock

Driving Isn't Just for Commuters...

Whether driving to school, visiting a doctor, buying groceries or playing ball in a park, Bay Area residents generally have to travel around their community to complete their daily errands. For most of us, that means driving.

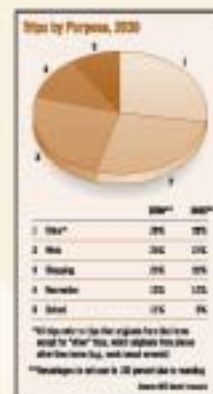
Bay Area residents are expected to make 28.5 million daily trips by 2030 – an increase of 35%. Similar to today, just over a quarter of those trips will be work-related.

Mode Share	2000	2030	Change in %
Drive Alone	71.0%	68.1%	-2.9
Carpool	13.7%	13.9%	+0.2
Transit	12.0%	13.3%	+2.4
Walk	3.3%	3.3%	—
Bicycle	1.1%	1.4%	+0.3

Source: MTC land forecasts

The Good News

Although cars will continue to be the most popular way to get around town or across the Bay, transit ridership is on the rise. By 2030, 13% of all workers are expected to commute on transit compared just under 11% in 2000. That's an additional 108 million transit riders each year.



Daily Travel Patterns

Where Are You Going?

Bay Area residents crisscross the region daily in an intricate pattern of trips largely shaped by where people live and work. But that's expected to change. By 2030, most of these trips will begin and end in the county where the resident lives.

Commuters From Outside the Region

As the number of Bay Area workers commuting from neighboring counties increases, gateway corridors into the region will see more traffic. The most used regional gateway in 2030 will likely be the Alameda County/Central Valley border, where an estimated 394,000 trips will be made on the average weekday.

In more rural areas along our region's northern and southern borders, dramatic increases are expected in the number of daily trips into the Bay Area. While these gateways are expected to grow faster, they will be less busy in terms of absolute number of trips.

At the southern tip of the region, the number of daily trips between Santa Clara County and San Benito and Monterey counties will likely increase by 120%. At the northern-most gateway between Napa and Lake counties, daily trips are expected to grow by 102%, overloading the largely rural roads in that part of the region.





Land Use – Transportation Links

A RAIL PRIMER

Base Network

The study team will develop a “base network” of current rail infrastructure and planned rail projects that can reasonably be financed and built over the next 25 years. Rail service expansions and extensions identified in MTC’s Resolution 3434 Regional Transit Expansion Program will be included in the base network. Similarly, planned rail projects with identified funding included in long-range transportation plans from neighboring regional planning agencies will also be included.

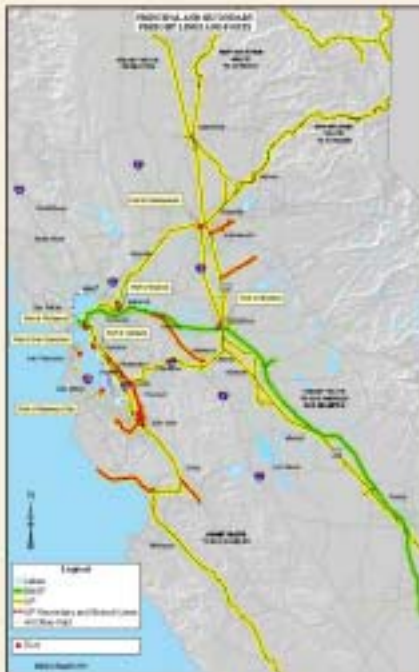
Resolution 3434: The Bay Area’s Vision for Transit Expansion

MTC’s Regional Transit Expansion Program, adopted in 2001 as Resolution 3434, identifies nine new rail extensions, significant service expansions to existing rail lines, and a comprehensive regional express bus program, new ferry service, plus eight enhancement programs to existing rail and bus corridors. Once implemented, this next generation of transit expansion projects will forge key transit network connections between southern Alameda County and the Silicon Valley, provide a new southern link, enhance the Bay Area’s central transit hub in San Francisco, and extend the reach of rail to the North Bay and the outer East Bay.



Planned Rail Projects Outside the Bay Area

There are six other metropolitan planning organizations in the study area besides MTC, including the Sacramento Area Council of Governments (SACOG), the San Joaquin Council of Governments (SJCOC), the Stanislaus Council of Governments (StanCOG), San Benito Council of Governments, the Transportation Agency for Monterey County (TAMC), and the Santa Cruz County Regional Transportation Commission (SCCRTC). All except Santa Cruz County have new or upgraded rail projects listed in their long-range plans.



Freight and Ports

The study area is served by two major freight railroads: Burlington Northern Santa Fe (BNSF), and Union Pacific (UP). The railroads have three gateways for transcontinental service to the Midwest and South. The Union Pacific's Feather River and Donner Pass routes link Sacramento and Chicago. Both UP and BNSF travel through the San Joaquin Valley and cross Tehachapi Pass to reach Southern California, Texas, and the Midwest. UP also has a route through the Sacramento Valley to Seattle, and the Coast Route to Los Angeles. The Port of Oakland is the largest port served by the freight rail network. Other ports are located along the Bay and the eastern and northern edges of the Delta.

Not All Trains Are the Same

There are several different types of technologies used for rail vehicles. Some public transit vehicles, such as trains used by BART, are not compatible with railroad operations. The Altamont Commuter Express (ACE), Caltrain and the Capitol Corridor use heavier equipment compatible with freight trains. Due to safety concerns, the Federal Railroad Administration (FRA) ordinarily does not grant permission for lighter-weight trains to operate on the same tracks as heavier-weight freight and passenger trains.

When passenger and freight trains share tracks, all vehicles must generally be heavier, "FRA-compliant vehicles" that meet stringent structural requirements. Lighter weight, "non-FRA-compliant vehicles" would not be allowed to operate on tracks while freight and passenger trains are in operation.

Federal-Compliant Vehicles					
Heavier-weight vehicles that cannot share tracks with lighter-weight vehicles					
Light Rail Vehicle BART, Pacific Surfliner Maximum Speed: 80 mph • Steel wheels • Non-impact Operating Speed: 80 mph	Heavy Rail Amtrak, Metrolink Maximum Speed: 125 mph • Steel wheels • Impact Operating Speed: 125 mph	Light Rail Vehicle San Joaquin Hills Maximum Speed: 80 mph • Steel wheels • Non-impact Operating Speed: 80 mph	Heavy Rail ACE, Caltrain Maximum Speed: 125 mph • Steel wheels • Impact Operating Speed: 125 mph	Heavy Rail ACE, Caltrain Maximum Speed: 125 mph • Steel wheels • Impact Operating Speed: 125 mph	Heavy Rail ACE, Caltrain Maximum Speed: 125 mph • Steel wheels • Impact Operating Speed: 125 mph
					

Non-Federal-Compliant Vehicles			
Lighter-weight vehicles that cannot share tracks with heavier-weight vehicles			
Light Rail Vehicle BART, Pacific Surfliner Maximum Speed: 80 mph • Steel wheels • Non-impact Operating Speed: 80 mph	Heavy Rail Amtrak, Metrolink Maximum Speed: 125 mph • Steel wheels • Impact Operating Speed: 125 mph	Heavy Rail ACE, Caltrain Maximum Speed: 125 mph • Steel wheels • Impact Operating Speed: 125 mph	Heavy Rail ACE, Caltrain Maximum Speed: 125 mph • Steel wheels • Impact Operating Speed: 125 mph
			



What's Your Vision of Regional Rail in 2050?

What's Your Vision for Bay Area Rail?

We want to know where YOU think Bay Area rail service should be improved and expanded. Here are a few ideas from transportation agencies, rail operators and other members of the public to get you started.

Public Agency Rail Proposals – Partial List (maps available)

1. **California High-Speed Rail Authority:** Proposed High-Speed Train System (2005) – High-speed train service for intercity travel in California between the San Francisco Bay Area and Sacramento in the north, through the Central Valley, to Los Angeles and San Diego in the south.
2. **Transportation Agency for Monterey County:** Caltrain Service to Monterey County and Monterey Peninsula Fixed Guideway Service (2005) – New rail service to improve access from Monterey to San Francisco and San Jose and to Salinas.
3. **Capitol Corridor:** California Passenger Rail System: 20-Year Improvement Plan (2001) – A statewide blueprint for transportation investments to foster faster, more frequent, and convenient rail service.
4. **Caltrain:** 2004–2023 Strategic Plan (2004) – A vision and guiding principles to shape Caltrain policy decisions and lay out strategies for service and capital improvements.
5. **Napa County Transportation Planning Agency and Solano Transportation Authority:** Napa/Solano Passenger/Freight Rail Study (2003) – New passenger rail and increased freight service between Vallejo, Fairfield/Suisun, Napa, Calistoga and intervening areas. The Fairfield/Suisun Amtrak station, Vallejo Ferry Terminal and Downtown Napa were identified as locations for major intermodal stations.
6. **BART:** I-80 Rail Feasibility Study, June 2003 – Increase commuter rail service along the existing Capitol Corridor line from Solano County to the Richmond BART station. For the longer term, new rail connections between the Richmond BART station and a proposed new Hercules Transit east of I-80, and the planned Hercules Capitol Corridor Station.
7. **BART:** East Bay Rail Overlay Concept – Build new and improve existing commuter/Capitol Corridor stations in areas where future development is likely, including a new BART/Rail transfer station in West Oakland.
8. **BART:** "Feasibility Study for an Infill BART Station in San Francisco at 30th & Mission Street, Final Report", May 2003 – The 30th Street Station would be located between BART's 24th Street and Glen Park Stations, and serve the Mission, Bernal Heights, Upper Nae Valley, Fairmont Heights, and Glen Park neighborhoods.

Community Rail Proposals – Partial List

1. Michael Kiesling, Architecture 21: Northern California Passenger Rail Network (2005)

BART extensions from Pittsburg-Bay Point, Dublin-Pleasanton, and Fremont. Caltrain connections to rail lines serving different parts of the Bay Area and high-speed rail connection from Livermore to the Central Valley. Assumes some passenger rail service would share lines with freight service.



2. BayRail Alliance: A Better Rail Vision for the South Bay (2005)

A new "Caltrain Metro East" line serving the South Bay between Redwood City and Fremont and a new line between Fremont and San Jose.



3. Bay Area Council: Strategic Plan for Bay Area Mobility Improvement (2004)

A comprehensive plan to improve mobility for the Bay Area by funding major rail projects to expand capacity and improve mobility.



Screening and Evaluating Rail Ideas

bay

Screening and Evaluation Process

Public Meetings to Cultivate Rail Concepts

A series of community workshops and stakeholder meetings are being held to solicit rail project ideas from:

- Residents of the Bay Area and adjacent regions
- Railroad operators
- Transportation planning agencies

Additional ideas will be culled from previous rail studies and during the scoping process for the California high-speed train project.

Develop and Apply Evaluation Criteria

Evaluation criteria will be created to screen and measure the feasibility and merits of the various rail and station options.

Through this screening process, the most promising rail options will be selected, refined and packaged into a series of regional rail networks for a more detailed evaluation.

The results of this additional analysis will help identify the recommended alternatives.



Rail Project Evaluation Criteria

Measuring Proposed Rail Networks

The evaluation criteria should be easy to understand and clearly illustrate key characteristics of the proposed rail network. Below are some evaluation criteria that will likely be used to measure proposed rail networks. Suggestions for additional criteria are welcome.

Draft Evaluation Criteria

- Maximize ridership/revenue potential.
- Maximize rail transit connectivity and accessibility.
- Maximize service to and promotion of transit-oriented development.
- Allow for incremental implementation.
- Minimize operating and capital costs.
- Minimize impacts to freight service.
- Minimize impacts to low-income/minority areas.
- Minimize impacts to natural resources.

What Do You Think?

1. Are important criteria missing from this list?
Please write your suggestions in your comment folder.
2. Which evaluation criteria are the most important?
Please rank your top three criteria in your comment folder.

APPENDIX E: EXHIBIT BOARDS ON BAY AREA TO CENTRAL VALLEY HIGH-SPEED TRAIN EIR/EIR





Project Sponsors:

- California High-Speed Rail Authority**
 California Environmental Quality Act (CEQA) Lead Agency
 925 L Street, Suite 1425
 Sacramento, CA 95814
 Telephone (916) 324-1541
 Fax (916) 322-0827
www.calhighspeedrail.ca.gov

- Federal Railroad Administration**
 National Environmental Policy Act (NEPA) Lead Agency

Office of Passenger Programs
 1120 Vermont Avenue (Mail Stop 20)
 Washington, DC 20590
 Telephone (202) 403-6368
www.fra.dot.gov



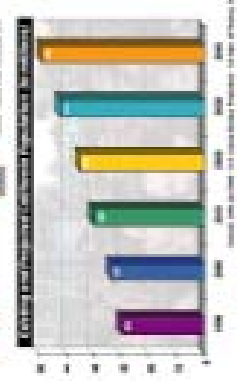
PROJECT SPONSORS, PURPOSE, AND NEED

PURPOSE OF STATEWIDE SYSTEM

- Provide Intercity Travel Capacity to Supplement Critically Overused Interstate Highways and Commercial Airports
- Meet Future Intercity Travel Demand That Will Be Unmet by Present Transportation Systems and Increase Capacity for Intercity Mobility
- Maximize Intermodal Transportation Opportunities by Locating Stations to Connect with Local Transit, Airports, and Highways
- Improve Intercity Travel Experience for Californians by Providing Comfortable, Safe, Frequent, and Reliable High-Speed Travel
- Provide a Sustainable Reduction in Travel Time between Major Urban Centers
- Increase the Efficiency of the Intercity Transportation System
- Preserve Environmental Quality and Protect California's Sensitive Environmental Resources by Reducing Emissions and Vehicle Kilometers/Vehicle Miles Traveled for Intercity Trips
- Consult with Resource and Regulatory Agencies during the Tier 1 Environmental Review and Use All Available Information for Assessing the Alternative That Is Most Likely to Yield the Least Damaging Practicable Alternative by Avoiding Sensitive Natural Resources (Wetlands, Habitat Areas, Conservation Areas) Where Feasible
- Maximize the Use of Existing Transportation Corridors and Rights of Way, to the Extent Feasible
- Develop a Practical and Economically Viable Transportation System That Can Be Implemented in Phases by 2020 That Would Generate Revenue to Offset Costs of Operations and Maintenance Costs

NEED FOR STATEWIDE SYSTEM

- Future Growth in Demand for Intercity Travel
- Capacity Constraints That Will Result in Increasing Congestion and Travel Delays
- Unreliability of Travel Stemming from Congestion and Delays, Weather Conditions, Accidents, and Other Factors Affecting Quality of Life and Economic Well Being of Residents, Businesses, and Tourism in California
- Increasing Frequency of Accidents on Intercity Highways and Passenger Rail Lines in Congested Corridors of Travel
- Reduced Mobility as a Result of Increasing Demand on Limited Modal Connections between Major Airports, Transit Systems, and Passenger Rail in the State
- Poor and Deteriorating Air Quality and Pressure on Natural Resources as a Result of Expanded Highway and Airports





A Program EIR/EIS:

- *Builds on Recent Statewide Program EIR/EIS*
- *Addresses State and Federal Environmental Requirements*
- *Is Appropriate for Project of This Scale and Magnitude*
- *Formally Engages Public and Agencies*
- *Considers Environmental Impacts at Program Level*
- *Analyzes a Range of HST Alignment Alternatives*
- *Streamlines Overall Environmental Process*
- *Supports Selection of a Preferred Corridor/General Alignment and Station Locations from the Bay Area to the Central Valley*



WHY PROGRAM EIR/EIS?

ENVIRONMENTAL ISSUES TO BE ANALYZED INCLUDE:

- Biological Resources—Section 7
- Wetlands/Waters of the United States—Section 404
- Flood Hazards, Floodplains, and Water Quality
- Air Quality
- Noise/Vibration
- Community Impacts/Environmental Justice
- Historical/Archaeological Resources—Section 106
- Land Use, Development, Planning, and Growth
- Farmlands
- Visual Quality and Aesthetics
- Energy
- Electromagnetic Fields/Interference
- Traffic/Circulation
- Public Utilities
- Hazardous Materials/Waste
- Geology/Soils
- Parks and Recreational Facilities—Section 4(f)
- Construction Impacts
- Cumulative Impacts

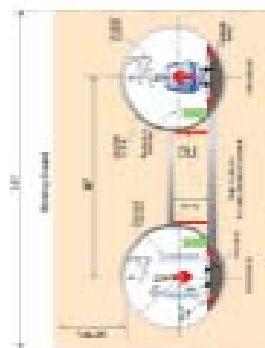
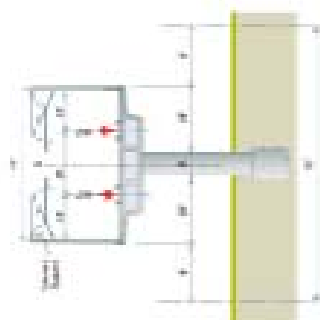
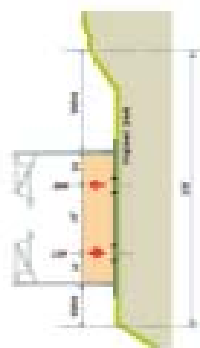
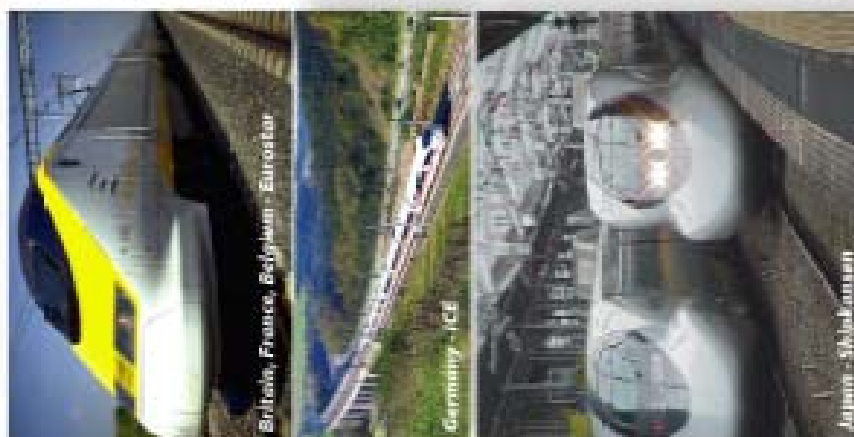


High-Speed Trains Would:

- Use state-of-the-art electrically powered steel-wheel-on-steel-rail technology with automatic train control.
- Be fully grade separated (no auto or pedestrian crossing on tracks), have fences to prevent intrusion, and be completely double tracked with four tracks at intermediate stations to provide express services.
- Carry up to an estimated 68 million passengers annually by 2020.
- Use technology that has been extensively proven in Japan for over 40 years and Europe for over 25 years and is the safest most reliable form of transportation.
- Achieve maximum speeds of over 200 miles per hour.

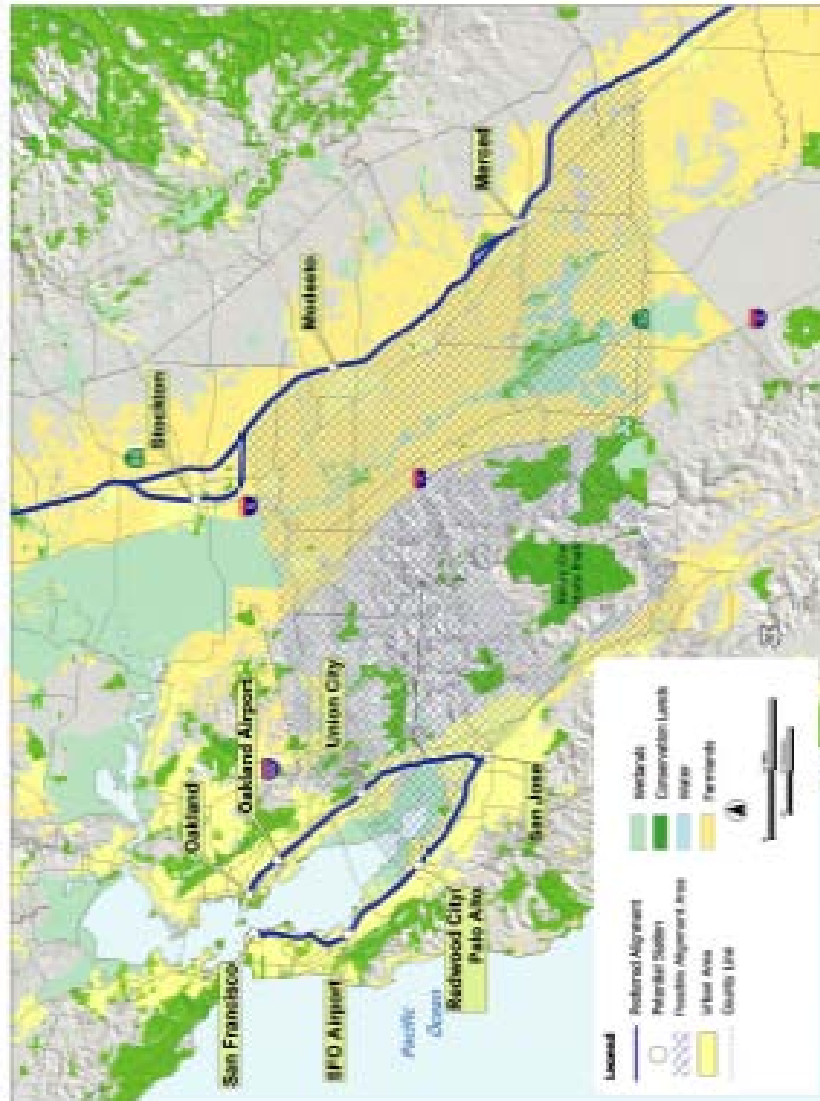


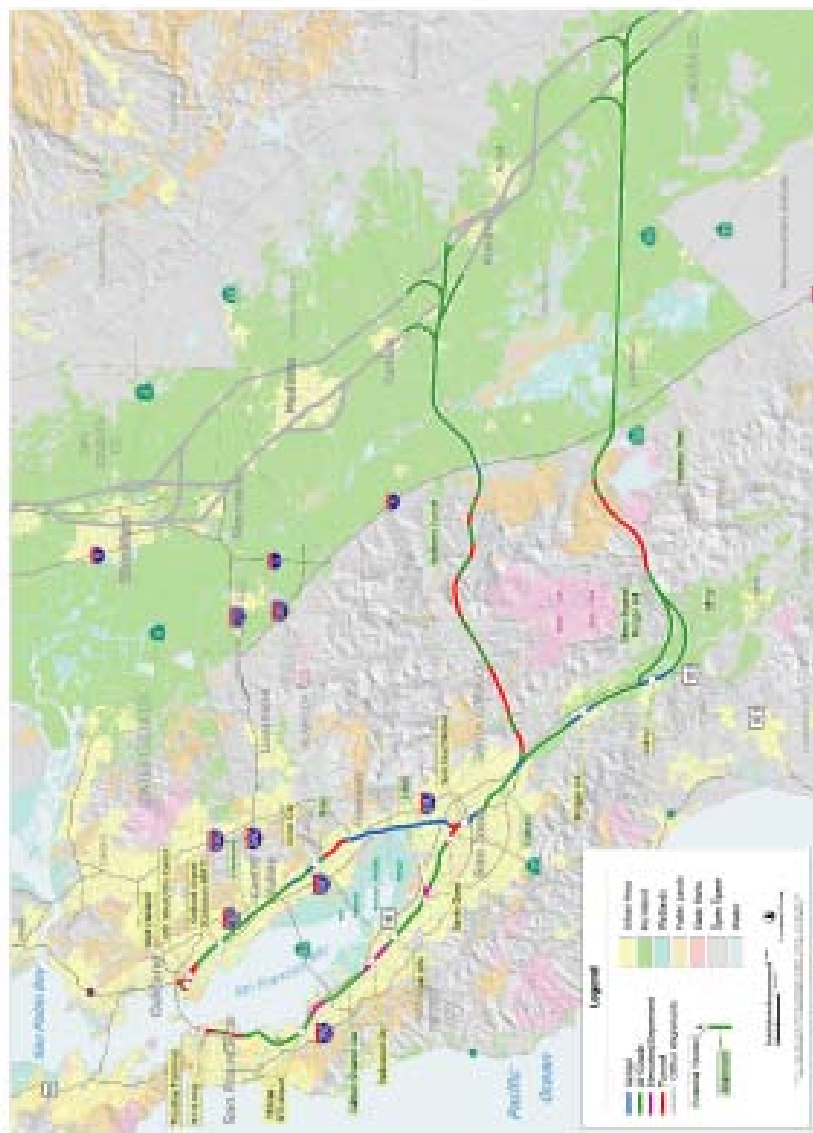
HIGH-SPEED TRAINS

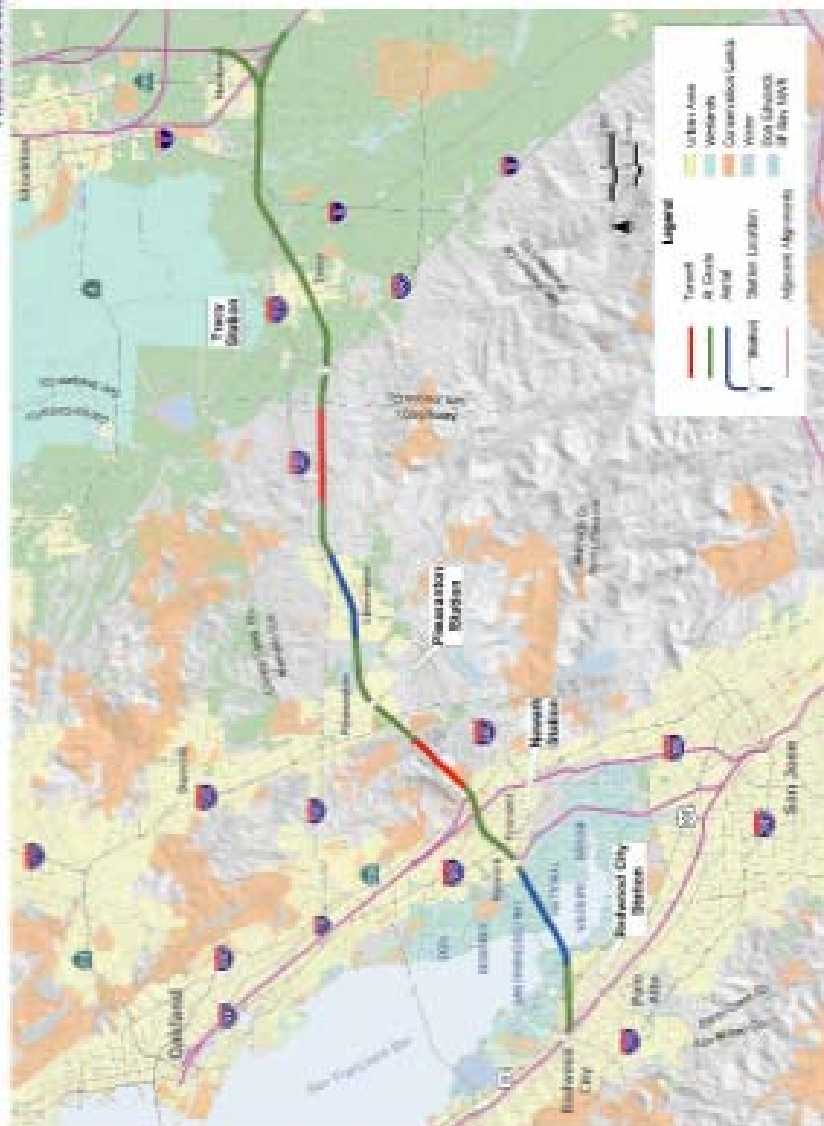




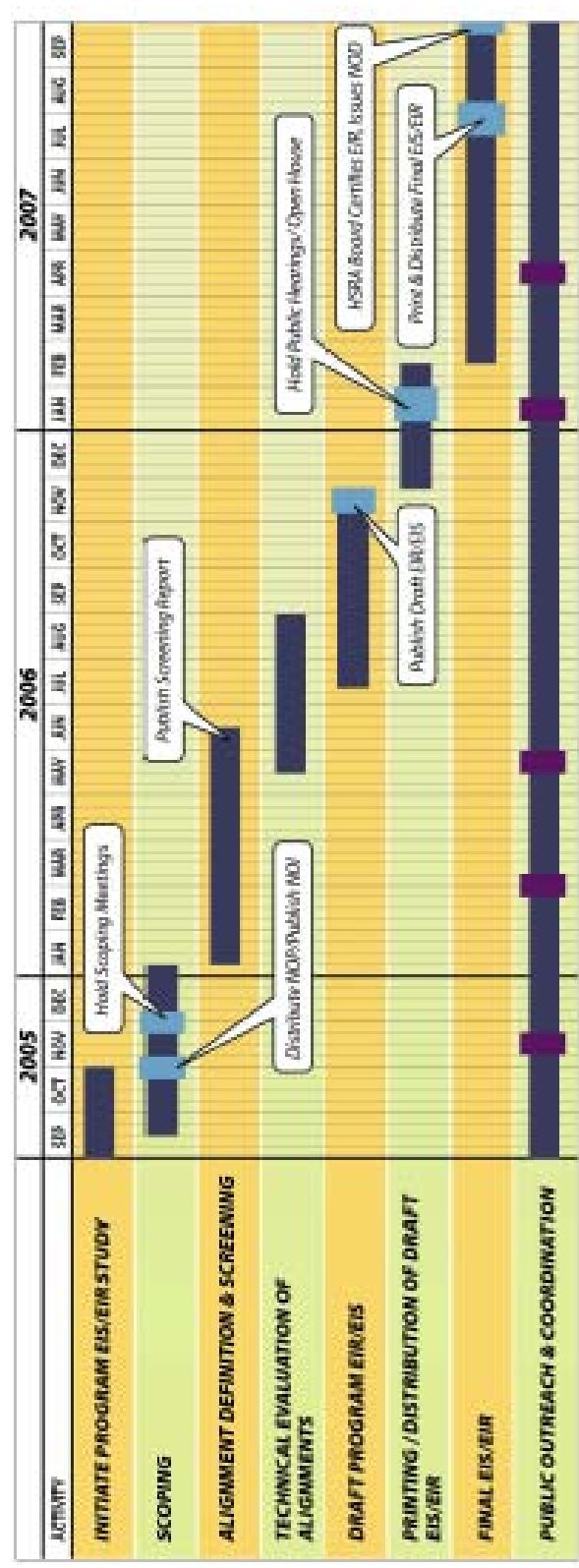
BAY AREA TO CENTRAL VALLEY STUDY AREA







SUMMARY SCHEDULE OF BAY AREA TO CENTRAL VALLEY PROGRAM EIR/EIS



APPENDIX F – FACT SHEETS ON REGIONAL RAIL PLAN AND BAY AREA TO CENTRAL VALLEY HIGH-SPEED TRAIN EIR/EIS



Laying the Tracks for Bay Area Regional Rail

Congestion is a problem that is expected to grow as the Bay Area adds people and jobs. Fed up with already long, congested commutes, public transit service cuts and round-the-clock traffic, Bay Area voters approved Regional Measure 2 in 2004. This measure sought to address congestion in the region's bridge corridors and enhance the convenience and reliability of the region's public transit system, including the passenger rail system.

Included in the voter-approved measure was a requirement for a Bay Area Regional Rail Plan — a comprehensive long-range vision for a passenger and freight rail system serving the San Francisco Bay Area and beyond.



Improving What We Have, Planning for Our Needs

The Regional Rail Plan study area includes the nine Bay Area counties – Alameda, Contra Costa, Marin, Napa, San Francisco, Santa Clara, San Mateo, Solano and Sonoma counties – and parts of nearby Yolo, Sacramento, Placer, San Joaquin, Stanislaus, San Benito, Santa Cruz and Monterey counties.

The plan will look at improvements and extensions of railroad, rapid transit, and high-speed rail services for the near- (5 to 10 years), intermediate- (10 to 25 years), and long-term (beyond 25 years).

More specifically, the plan will examine ways to:

- Incorporate passenger trains into existing rail systems;
- Improve connections between passenger trains and other transit, such as light-rail, shuttles and buses;
- Expand the regional rapid-transit network; increase rail capacity for both passenger and freight rail systems;
- Coordinate rail investment around transit-friendly communities and businesses;
- Formulate strategies for preserving and acquiring "rights-of-way" for future rail lines;
- Identify urban locations where passenger rail could stimulate redevelopment;
- Consider various rail technologies; and
- Develop options to consolidate rail services and activities to provide better, more efficient rail service.



The plan will also provide a detailed analysis of potential high-speed train routes between the Bay Area and the Central Valley. The goal of this part of the study is to identify which of the alignment alternatives merit further evaluation in the California High-Speed Rail Authority's "Bay Area to Central Valley High-Speed Train Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS)." The plan will not identify a preferred alignment alternative for the Bay Area. That responsibility remains with the California High-Speed Rail Authority as part of its parallel environmental review process.

Planning Process—A Team Effort

The Metropolitan Transportation Commission, the Bay Area Rapid Transit (BART) District, the Peninsula Corridor Joint Powers Board (Caltrain) and the California High-Speed Rail Authority are jointly developing the Regional Rail Plan – but with plenty of help!



Bay Area residents along with neighboring communities are helping develop the Regional Rail Plan at a series of community workshops.



A regional rail steering committee, comprised of local passenger and freight rail operators, including Amtrak, Capitol Corridor, Altamont Commuter Express (ACE), Union Pacific Railroad and Burlington Northern-Santa Fe Railway, as well as county congestion management agencies, are providing direction on the study.



An advisory group of academics, environmentalists, and business people are lending technical expertise. Neighboring regional agencies and county government associations are also study participants.

The steering committee will review and comment on the plan before it is sent to the Metropolitan Transportation Commission for final action in July 2007.

For more information, please contact:

Metropolitan Transportation Commission
Ashley Nguyen
101 Eighth Street
Oakland, CA 94607
510.817.5809
anguyen@mtc.ca.gov

Regional Rail Project Offices:

510.464.6151

Or visit:

www.bayarearailplan.info

Rail Plan Step-by-Step

Phase 1 – Vision

Develop a vision for rail in the region.

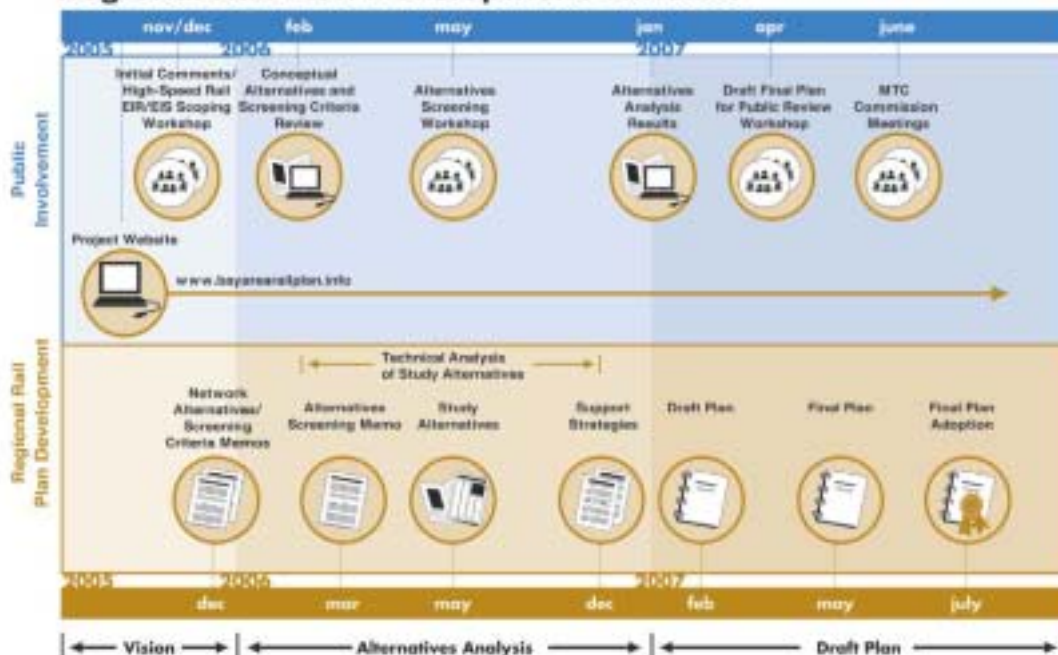
Phase 2 – Alternatives

Screen the initial alternatives and identify final alternatives for further evaluation.

Phase 3 – Draft Plan

Prepare draft and final plans identifying intermediate- and long-term rail projects.

Regional Rail Plan Development Timeline





BAY AREA TO CENTRAL VALLEY HIGH-SPEED TRAIN PROGRAM EIR/EIS

The California High-Speed Rail Authority (Authority), in cooperation with the Federal Railroad Administration (FRA), recently completed a Final Program Environmental Impact Report and Environmental Impact Statement (EIR/EIS) for a high-speed train (HST) system in California. The Authority and FRA are now starting to prepare a separate next-tier Program EIR/EIS to help identify a preferred corridor/general alignment and station locations to connect the San Francisco Bay Area to the Central Valley segment of the HST system.

To ensure that the issues most important to residents, public agencies, and other involved parties are addressed in the Program EIR/EIS, the Authority is inviting your participation in scoping meetings, which have been scheduled to collect public input. Your participation and comments will help define the range of alternatives and environmental issues to be addressed in the Program EIR/EIS.

Additional information about the project is available at www.calhighspeedrail.ca.gov.

PURPOSE OF STATEWIDE SYSTEM

- Provide Inter-city Travel Capacity to Supplement Critically Overused Interstate Highways and Commercial Airports
- Meet Future Inter-city Travel Demand That Will Be Unmet by Present Transportation Systems and Increase Capacity for Inter-city Mobility
- Maximize Inter-modal Transportation Opportunities by Locating Stations to Connect with Local Transit, Airports, and Highways
- Improve Inter-city Travel Experience for Californians by Providing Comfortable, Safe, Frequent, and Reliable High-Speed Travel
- Provide a Sustainable Reduction in Travel Time between Major Urban Centers
- Increase the Efficiency of the Inter-city Transportation System
- Preserve Environmental Quality and Protect California's Sensitive Environmental Resources by Reducing Emissions and Vehicle Kilometers/Whole Miles Traveled for Inter-city Trips
- Consult with Resource and Regulatory Agencies during the Tier 1 Environmental Review and Use All Available Information for Assessing the Alternative That Is Most Likely to Yield the Least Damaging Practicable Alternative by Avoiding Sensitive Natural Resources (Wetlands, Habitat Areas, Conservation Areas) Where Feasible
- Maximize the Use of Existing Transportation Corridors and Rights of Way to the Extent Feasible
- Develop a Practical and Economically Viable Transportation System That Can Be Implemented in Phases by 2020 That Would Generate Revenues in Excess of Operations and Maintenance Costs



NEED FOR STATEWIDE SYSTEM

- Future Growth in Demand for Inter-city Travel
- Capacity Constraints That Will Result in Increasing Congestion and Travel Delays
- Unreliability of Travel Stemming from Congestion and Delays, Weather Conditions, Accidents, and Other Factors Affecting Quality of Life and Economic Well Being of Residents, Businesses, and Tourism in California
- Increasing Frequency of Accidents on Inter-city Highways and Passenger Rail Lines in Congested Corridors of Travel
- Reduced Mobility as a Result of Increasing Demand on Limited Modal Connections between Major Airports, Transit Systems, and Passenger Rail in the State
- Poor and Deteriorating Air Quality and Pressure on Natural Resources as a Result of Expanded Highway and Airports

TECHNOLOGY EXAMPLES



EXAMPLES OF EXISTING HIGH-SPEED TRAINS

WHY PROGRAM EIR/EIS? A PROGRAM EIR/EIS:

- Builds on Recent Statewide Program EIR/EIS
- Addresses State and Federal Environmental Requirements
- Is Appropriate for Project of this Scale and Magnitude
- Formally Engages Public and Agencies
- Considers Environmental Impacts at Program Level
- Analyzes a Range of HST Alignment Alternatives
- Streamlines Overall Environmental Process
- Supports Selection of a Preferred Corridor/General Alignment and Station Locations from the Bay Area to Central Valley



CONTACT INFORMATION:

California High-Speed Rail Authority

925 L Street, Suite 1425
Sacramento, CA 95814

Telephone (916) 324-1541
Fax (916) 322-0827

www.calhighspeedrail.ca.gov

Federal Railroad Administration

Office of Passenger Programs
1120 Vermont Avenue (Mail Stop 210)
Washington, DC 20590

Telephone (202) 493-6368
www.fra.dot.gov

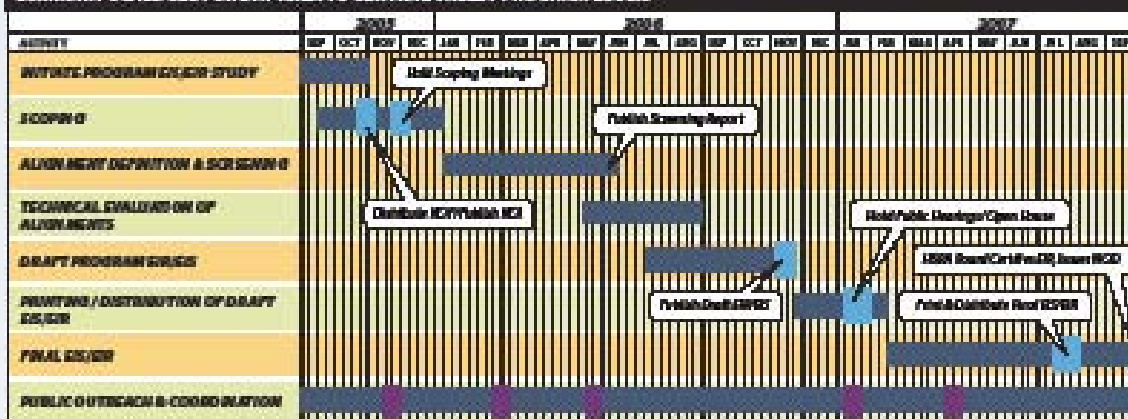
QUESTIONS?

- Call the California High-Speed Rail Authority at (916) 324-1541
- Para más información en español, llame al (916) 324-1541

ENVIRONMENTAL ISSUES TO BE ANALYZED INCLUDE:

- Biological Resources—Section 7
- Wetlands/Waters of the United States—Section 404
- Flood Hazard, Flood Plains, and Water Quality
- Air Quality
- Noise/Vibration
- Community Impacts/Environmental Justice
- Historical/Archaeological Resources—Section 106
- Land Use, Development, Planning, and Growth
- Farmlands
- Visual Quality and Aesthetics
- Energy
- Electromagnetic Fields/Interference
- Traffic/Circulation
- Public Utilities
- Hazardous Materials/Waste
- Geology/Soils
- Parks and Recreational Facilities—Section 4(f)
- Construction Impacts
- Cumulative Impacts

SUMMARY SCHEDULE FOR BAY AREA TO CENTRAL VALLEY PROGRAM EIR/EIS



APPENDIX G – COMMENT FORM FOR REGIONAL RAIL PLAN



Regional Rail Plan Comment Folder

Your comments are important to us! Please visit each station to learn more about the Bay Area Regional Rail Plan. Use this booklet to write down your vision for rail service in the Bay Area. Help us brainstorm about possible rail extensions of existing service and new rail routes, and give us your thoughts on how to evaluate the different rail ideas. **Please return this folder to the Welcome Station at the end of today's meeting!**



Welcome!

Welcome to today's meeting on the Bay Area Regional Rail Plan. Please make sure you **sign in** so we can keep you updated on the progress of the study over the next 18 months. **Please take this comment folder and visit the stations around the room before the presentation and group discussion.**



Laying the Tracks for Bay Area Regional Rail

The station describes the project's purpose and timeline. Please share your comments, issues or questions about the planning process. **Please let us know of organizations or individuals you want to make sure are invited to future meetings about the Regional Rail Plan.**



Land Use-Transportation Links

A. Planning for Future Growth. Congestion is a problem that is expected to grow as the region adds people and jobs. This station outlines a regional plan for managing that growth in such a way that links land use and transit — making it easier to get around while preserving the beauty and quality of life in the region. New transit-oriented developments include a mix of land uses such as housing, retail and services that are located around rail stations or key bus stops.

Do you feel transit-oriented developments make sense for the Bay Area? Yes No
For your community? Yes No For yourself? Yes No Please explain.

B. A Rail Primer. This station shows the Bay Area's vision for transit expansion, as well as planned rail projects in neighboring counties. Information on freight and ports describes the interactions between passenger and freight rail systems. Not all trains are the same, and rail car technologies also are explained.



4

What's Your Rail Idea?

- Ⓐ Use the map below to illustrate where you would like to see new rail service and/or new train stations in the Bay Area and adjacent regions. Be sure to indicate the type of rail service you envision (extension of a current rail line using existing or new technology, new high-speed rail, etc.). **Please draw or write directly on this map.**



- Ⓑ In the space provided below, describe improvements to existing rail services that you think are needed.

SECTION 5

Screening and Evaluating Rail Ideas

Below are some evaluation criteria that likely will be used to assess proposed rail networks.

Which evaluation criteria are the most important to you? Please circle your three most important criteria.

Maximize ridership/revenue potential

Minimize operating and capital costs

Maximize rail transit connections and accessibility

Minimize impacts to freight service

Maximize service to and promotion of transit-oriented development

Minimize impacts to low-income/minority areas

Allow for incremental implementation

Minimize impacts to natural resources

Are important criteria missing from this list? Please suggest additional criteria you believe should be considered.

SECTION 6

High-Speed Train Program

The California High-Speed Rail Authority, in partnership with the Federal Railroad Administration, is preparing a Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) to identify a preferred high-speed train alignment and station locations between the Bay Area and the Central Valley. Please tell us any issues, concerns or questions you believe should be addressed in this "Bay Area to Central Valley High-Speed Train Program EIR/EIS."



Meeting Evaluation

1. Please let us know what you thought of this workshop.	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
A. The meeting location was convenient and the meeting materials were in a format I could use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. The handouts and displays were easy to read and understand with an appropriate level of detail.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. The presentation was educational and thought provoking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. I had sufficient opportunity to provide comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. I felt like my comments were heard.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. I gained a better understanding of other people's perspectives and priorities, and the trade-offs involved with these issues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. A meaningful discussion took place.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. After today's event, I will remain involved in the development of the Regional Rail Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Personal Information Survey *(submitting this information is strictly voluntary)*

Gender: ☐ Male ☐ Female

Race: ☐ African American ☐ Hispanic/Latino
☐ American Indian/Alaskan Native ☐ White (not Hispanic)
☐ Asian/Pacific Islander ☐ Other

Disability: ☐ No ☐ Yes _____

Please provide your home zip code: _____

3. How did you learn about this meeting?

☐ Newspaper ☐ My local rail operator ☐ E-mail notice
☐ Flyer received via mail ☐ Other _____

4. Please share any other comments about this community workshop on the back of this handout. Comments also may be submitted via email to info@bayarearailplan.info.

Date of Attendance *(please check one)*:

☐ Tue 11/29 ☐ Wed 11/30 ☐ Thurs 12/1 ☐ Mon 12/5 ☐ Tue 12/6 ☐ Thurs 12/8

APPENDIX H - WRITTEN CORRESPONDENCE

Comment submitted by: Arthur Ringham - via email, a.ringham@sbcglobal.net

Date received: 12/5/2005 Subject: Workshop, San Jose, Dec 1

Hello Howard,

I attended the subject workshop [in San Jose] and thought it quite worthwhile. Following are some comments:

CONSULTANTS

I was surprised that there were no representatives from the consultant teams doing the Bay Area to Central Valley Program EIR/EIS study in attendance at the workshop (unless they were there but not introduced). It would be desirable for them to hear comments firsthand to get their detail, emotion and flavor, rather than just get a written synopsis later. I suggest they be present at future workshops.

OVERLAP

It seemed that the workshop comingled two overlapping studies:

The Bay Area to Central Valley EIR/EIS study by the California High Speed Rail Authority to recommend a fairly specific rail route for HSR to the Bay Area, with a scheduled completion date of July 2007 and

The Bay Area Regional Rail Plan study involving other (mostly rail) passenger transportation systems (and different legal entities which may have conflicting interests) within the greater Bay Area, but also including High Speed Rail. This study is also scheduled for completion in July 2007.

Although these two studies need to be coordinated, they should be separated insofar as possible and interfaces between them defined to keep both studies from getting bogged down in resolving conflicts. Where some aspects of the two studies may conflict, resolution may not be practical through coordination before study completion dates and two separate "final reports". Provision should probably be made for an additional phase after July 2007 to resolve possible conflicts and complete an integrated plan.

CRITERIA

There are too many criteria and many are of a "motherhood and apple pie" nature which are difficult or impossible to measure. If criteria can't be measured against, alternatives can't be compared and evaluated. The primary criteria, particularly for High Speed Rail, should be financial (return on capital) and answer the question "Which alternative is the best investment for California?"

Best wishes for successful studies.

Comment submitted by: Mark Evanoff, Union City - via web comment form, mevanoff@ci.union-city.ca.us

Date Received: 12/8/05 Subject: Freight and Passenger

As a part of the rail alternatives analysis it would be helpful to provide the following information:

1. What is the current travel time for freight on each of the rail subdivisions? Illustrate this data on a regional rail map.

2. Identify the major employers and manufacturers that use freight rail services on the base map.
 3. Quantify the current delay time in shipping goods out of the Port of Oakland that can be attributed to lack of freight rail capacity.
-

Comment submitted by: Mark Evanoff, Union City - via web comment form, mevanoff@ci.union-city.ca.us

Date Received: 12/8/05 Subject: Freight and Passenger

After the passenger rail improvements are made for Dumbarton Rail:

1. Quantify improved travel time for freight on the Niles Subdivision and quantify the improved ability to move goods out of the Port of Oakland.
 2. Quantify improved travel time for freight, on the Warm Springs Subdivision, and the Coast Subdivision south of the Centerville Subdivision.
-

Comment submitted by: Mark Duncan - via email, mark@askmar.com

Date Received: 12/9/05 Subject: Comments on regional rail program

Ashley

I spoke last night at San Carlos regarding the regional rail program. Here is the essence of what I said:

"Obtaining the most cost-effective, integrated regional rail will require Federal Railroad Administration (FRA) regulations to be changed. To obtain the maximum utilization of our rail right-of-ways, freight, local, regional, and high speed rail traffic upon them, need to be able to share them.

Today, FRA regulations do not allow using the highly evolved, reliable and efficient railroad equipment available in Europe and Japan with our existing freight and rail equipment.

If the FRA regulated the automobile industry, everyone would be driving a Hummer, and we would be envious of the people in Japan and Europe who could drive Toyota Prius hybrids.

The FRA is an entrenched, reactionary bureaucracy that relies upon the brute force approach of the 1900s. If it breaks, make it heavier and stronger.

But today, in the 21st century, we can be more intelligent and wise, resulting in much lighter, safer, more reliable and comfortable equipment.

Many transportation agencies have tried and failed to change the FRA regulations.

Changing these regulations to reflect the realities of the 21st century will require concerted and united political will, otherwise it will not happen.

Each city, agency, and group within the region will need to lend its support to change the FRA regulations, otherwise we will have a regional rail system that does not reflect industry best practices and that does not make the best use of limited taxpayer funds."

-----mark Duncan

Comment submitted by: Frank Ploof - via web comment form, ploof1@ltnl.gov

Date received: 12/9/05 Subject: ACE

I was at the Modesto meeting on 12/6 because I'm interested in ACE being extended to Modesto. I asked how one would go about starting the process and was told that a first step would be to get San Joaquin and Stanislaus counties to agree. To assist me, could you provide the names and phone numbers of county staff who would be involved?

Tx, Frank

Comment submitted by: Roy Olcott — via web comment form, ssf_reo@comcast.net

Date received: 12/13/05 Subject: Regional Workshops - SamTrans the missing !?

BARP

Picked up BART Bulletin for Nov/DEC with listings of workshops. I did NOT see Sam Trans/Penninsula representation.

Is SAM Trans still fueding with BART ? Is the Penninsula between SF and SJ not important? Yes, I do see that CalTrain is represnted with your group, but, I believe that SAMTrans needs to be involved or risk another BART/Penninsula fiasco we seem to be invlved in.

I will send copy of this E-Mail to both BART and SamTrans. Any other organizations that need to be E-Mailed to help get SamTrans Involment?

Thanks and best regards

Roy

Comment submitted by: Ric Silver, Rail Passenger Association of California, via email, ricsilver@aol.com

Date Received: 12/13/05 Subject: Comments regarding the regional rail plan

RAIL PASSENGER ASSOCIATION OF CALIFORNIA
1008 10th St-217, Sacramento, CA 95814, 877-288-3103
WWW.RailPAC.org

December 12, 2205

Ashley Nguyen
MTC Staff Liaison
Regional Rail Plan
101 Eighth Street
Oakland, CA 94607

Re: Regional Rail Plan

Dear Ms. Nguyen:

At the San Jose public meeting for the Regional Rail Plan, a statement was made to the effect that all rail or transit advocacy groups support the Altamont Pass route for the High Speed Rail entrance into the bay area.

With more than 3,000 members, almost 900 in the region being studied, RailPAC considers itself a rail advocacy group, and as of at least this date, we have not taken a position on any of the various alternative route into the bay area.

RailPAC has a policy, on such a major issue as High Speed Rail, not to take any specific position or routes, stations etc. until AFTER we have had a chance to review the EIR/EIS and to get comments and opinions from our members.

Our only position, as it pertains to High Speed Rail, is that: "The Rail Passenger Association of California (RailPAC) supports the construction and operation of a High Speed Rail system compatible to and interchangeable with, conventional rail such as Amtrak, Metrolink, Caltrain and ACE".

We are now in the beginning of our process of reviewing the recently released EIR/EIS. When, and if, RailPAC makes any specific comments or endorsements we will make a proper notification.

Would you please include this letter into the record of the San Jose meeting.

Sincerely,

Richard L. Silver, Executive Director
Rail Passenger Association of California.

Comments submitted by: Anthony Dominguez, Citizen of San Jose - via web comment form, daleft24@aol.com

Date received: 12/14/2005 Subject: Pacheco Pass HSR route.

As an ardent supporter of California's High Speed Rail system, I am in favor of a Pacheco Pass alignment into the greater Bay Area. Some in the Bay Area would like to turn HSR into a commuter line; benefiting those commuters who work in the Bay Area but have CHOSEN to live over 1-2 hours away in the Central Valley. The main goal of the proposed HSR is to provide alternative travel from Southern California to Northern California. The Pacheco Pass alignment, unlike the Altamont Pass proposal, provides this direct alternative into the Bay Area via San Jose. It is hoped that the powers that be will choose this alignment over the Altamont. Thank you for your time.

Comment submitted by: Jack Schoop - via email, schoopj@sbcglobal.net

Date received: 11/1/2005 Subject: Re: Regional Rail Plan Community Workshops - November and December 2005

I live in the north of the Golden Bridge. We have a railroad bed that is to be used for travelling sometime in the years ahead. We have only one freeway so we need our railroad to help us out.

I hope that will get into the MTC's watch.

Jack Schoop

Comment submitted by: Nancy Nadel - via email, Nnadel@oaklandnet.com

Date received: 11/2/2005 Subject: Re: Regional Rail Plan Community Workshops - November and December 2005

I'd rather you focussed on improving the Bay area bus system.

Comment submitted by William H. Wainwright - via email, brocoli@pacbell.net

Date received: 11/1/2005 Subject: Re: Regional Rail Plan Community Workshops - November and December 2005

To the attention of Ashley Nguyen:

Thank you very much for this notice. I am disappointed, however, that you are not holding one of your workshops here in Martinez. As you know, the Martinez Amtrak and Union Pacific rail route is one of the busiest, if not the busiest, in the entire bay area.

Moreover, the Santa Fe Burlington Northern Railroad also passes through our community.

Holding one of your workshops here would have been appropriate recognition of the significance of this existing infrastructure and, more importantly, would have focused attention on the importance of the Martinez rail connection for transit for the entire Diablo Valley area, now and in the future.

Respectfully yours,

Bill Wainwright
Vice Mayor,
City of Martinez

Comment submitted by: Donald F. Robertson - via email, donaldfr@speakeasy.net

Thank you for your E-mail about workshops for the regional rail plan.

I am very fearful of this plan because I'm afraid that, in the name of "integration," it will amount to another excuse to continue taking money from city residents and giving it to the suburbs.

My main concern is that we stop subsidizing sprawl. Going forward in all future transit funding, inner city residents in San Francisco and Oakland need to get the same per capita and per mile subsidies as suburban communities. We need to reward the efficiencies of having businesses, workers, and entertainment all located close together, and stop penalizing it.

Thanks you for listening.

-- Donald

Donald F. Robertson
255A Henry Street
San Francisco
94114-1231
USA

415-621-2113
Mobile: 415-595-0338

donaldfr@speakeasy.net
<http://www.speakeasy.net/~donaldfr>

Comment submitted by: Doug DeLong - via web comment form, delong007@aol.com

Date received: 12/16/05 Subject: CHSRA Bay Area to Central Valley EIR/EIS comments

I have communicated to CHSRA, via the web-based scoping comment process, my desire to see additional routes considered for connecting the Bay Area and Central Valley portions of the California HSR system beyond just the shaded area on their notice postcard. Since these comments are also relevant to the objectives of the Regional Rail Plan I also wanted to provide them for your consideration. (Since I neglected to copy the EIR/EIS scoping comment form before submission, I will try to provide the same ideas below, but it will not be verbatim.)

The construction of the Central Valley portion of the California HSR system will allow the current Amtrak/California San Joaquin route between Sacramento and points south to be replaced with HSR operation, with rail mode extending all the way to Los Angeles, possibly beyond to San Diego.

In the Bay Area portion of the California HSR construction the Caltrain Peninsula corridor will be upgraded for higher speeds and electrified propulsion through a partnership between CHSRA, Caltrain, and various regional funding sources. This will benefit both long-distance HSR riders and Caltrain commuters.

An Altamont connection between the Bay Area and Central Valley, which I support, could likewise benefit both long-distance HSR riders and current/additional ACE commuters. No doubt the higher speeds and reduced impacts from freight operations would significantly increase commute ridership, a source of revenue that should not be ignored in the analysis. Included in the Altamont analysis should also be evaluation of the Dumbarton line for inclusion into the HSR system, since activation of that corridor for passenger service using regional funds is anticipated.

I would like to see 2 additional routes evaluated for connection between the Bay Area and Central Valley: a San Francisco/Oakland/Sacramento connection and a San Jose/Salinas/Paso Robles/Wasco connection.

The Amtrak/California Capitol Corridor service ridership has been growing by leaps and bounds, even though it still takes 4 hours to go from San Jose to Sacramento, a distance that can be driven by car in just over 2 hours. A San Francisco/Oakland/Sacramento connection would dramatically reduce HSR travel time between San Francisco and Sacramento and offer the possibility of folding the Capitol Corridor service into the HSR system.

A San Jose/Salinas/Paso Robles/Wasco connection would offer the shortest (and hence fastest) route between San Francisco and Los Angeles. It would also provide service to Monterey County, which has expressed interest in extending Caltrain commute service southward to Salinas. Aside from its operational benefits, this connection would also assuage San Jose's route envy relative to Altamont, but any Los Banos real estate speculators would be out of luck.

In conclusion, I think the operative question is not Altamont OR ..., but Altamont AND ... We should be talking about including Altamont AND these 2 new connections in the California HSR Objective System, even if it is not feasible for all 3 to be in the Initial Operational Segment.

Comment Submitted by: Jason Kibbey, via email

Date received: 12/16/05 Subject: Bay Area Central Valley Scoping Comments

Dear Mr. Leavitt,

Attached are scoping comments from Defense of Place and Californians For Western Wilderness regarding the Bay Area to Central Valley High Speed Rail EIR/EIS. I am sending them to you because you were listed as the appropriate recipient on the NOP.

We look forward to receiving updates about the progress of the EIR/EIS.

Best regards,

Jason Kibbey

Jason Kibbey
Director, Defense of Place a Project of the Resource Renewal Institute
Fort Mason Center
San Francisco, CA 94123
415.928.3774
<http://defenseofplace.org>
jkibbey@rri.org

Comment Submitted by: Robert Stancell, via email

Hello Ms. Nguyen,

My name is Robert Stancell and I have been talking with David Melko about creating rail service between Sacramento and the Bay Area. David suggested that I email you with my preliminary proposal. Below is the memo I sent to David. After your review, please contact me so that we can have a more detailed discussion about my proposal.

Kind regards,
Robert Stancell
916-202-4678
R.Stancell@att.net

Mr. Melko,

Per our conversation, here is a brief description of what I want to accomplish.

I am interested in building a private / public commuter rail line between Auburn and Pittsburgh (Link to BART) to replace the Capitol Corridor trains. The trains will run on electricity and be similar to BART or European commuter trains in style. However, our trains will have cars dedicated for meals and restrooms. The rail line between stops will have solar panels to produce electricity specifically for the trains. This will cut some, hopefully most, of the energy expense. The more we use existing grants (smart growth, etc.) to offset costs the better. I have several plans to get local developers and counties to contribute to this project as well.

The initial stops will be as follows:

Auburn
Roseville
Downtown Sacramento
Davis
Dixon
Vacaville
Fairfield
Pittsburgh

Future Stops:

West Sacramento
Stockton
Modesto

I want to build dedicated rail tracks for the commuter train. Sharing rail tracks with freight trains will only lead to more delays and bad service. I understand that most of the right of way for a train service is in place.

I am in the initial phase of gathering information on this project. We have a unique opportunity to build a 21st century rail system for the people of our area. I am willing to make it happen. Please let me know your thoughts.

Best regards,
Robert Stancell
916-395-8807
R.Stancell@Att.Net



DEFENSE OF PLACE
A PROJECT OF THE RESOURCE RENEWAL INSTITUTE



Californians for Western Wilderness
A project of Resource Renewal Institute

December 9, 2005

Dan Leavitt
Deputy Director
California High-Speed Rail Authority
925 L Street, Suite 1425
Sacramento, California 95814

Dear Mr. Leavitt,

Defense of Place (DoP) and Californians for Western Wilderness (CalUWild) appreciate the opportunity to comment on the scoping process of the Bay Area to Central Valley EIR/EIS.

Defense of Place works to assure that parks, open space, and wildlife refuges are protected in perpetuity. Defense of Place is active in resource protection campaigns throughout California and the Western United States.

Californians for Western Wilderness is an unincorporated citizens organization with more than 710 members and supporters dedicated to encouraging and facilitating citizen participation in legislative and administrative actions affecting wilderness and other public lands in the West.

DoP and CalUWild are concerned with the impacts that the Bay Area to Central Valley (BACV) section of the high-speed rail (HSR) project will have on protected landscapes including parks, open space, and wildlife refuges (often referred to as Section 4(f) and (6) Resources.) We are also concerned that the high-speed rail will also impact conservation lands such as the Nature Conservancy's Mount Hamilton project and threaten future expansion of such conservation endeavors in the region. Our organizations appreciate the earlier decision that Henry Coe State Park will be left out of any of the potential routes for the Bay Area to Central Valley crossing, but continues to be troubled with the fact that protected landscapes continue to be seen as a viable option for HSR routes. There should be *no* impacts on both 4(f) and 6(f) resources or on other conservation lands.

Californians strongly value their parks, open space, wildlife refuges and other protected lands. California voters have recently supported initiatives giving billions of dollars to further acquire preservation lands for future generations. Propositions 204, 12, 40, and 50 together allocated about \$3.2 billion for a broad array of land acquisition and restoration projects. These allocations include funding to the several state conservancies and the Wildlife Conservation Board (WCB), as well as for ecosystem restoration, agricultural land preservation, urban forestry, and river parkway programs.¹ California's open, scenic, and wild places are a driving force behind the state's \$80 billion tourism industry.² Access to open and protected places is a major factor in attracting businesses, workers and tax paying residents.³ California clearly values and depends on permanent protection for lands already set aside for preservation.

Support for the California High Speed Rail from the environmental community has been remarkably low for a project with such a multitude of benefits for California's ecosystems. One of the main reasons for this lack of support has been the HSR's potential impact on parks, open space, and wildlife refuges as well the perceived low-priority of protecting these resources by the High Speed Rail Authority (HSRA). While the decision to avoid Henry Coe State Park and its Orestimba Wilderness was a welcome first step, the HSRA should focus on eliminating *all* the direct negative impacts of the HSR on 4(f) and 6(f) resources in the Bay Area to Central Valley corridor. Doing so would gain substantial support for the HSR from the environmental community.

Within the study area there are many federal, state, and locally protected landscapes including, but not limited to: Don Edwards National Wildlife Area, Grasslands Ecological Area, Anderson Lake, George Hatfield State Recreation Area, San Luis State Recreation Area, Cottonwood Creek Wildlife Area, Los Banos Wildlife Area, Ohlone Regional Wilderness, Sunol Regional Wilderness, and Pacheco State Park. Even though some of these areas have not be included in earlier route proposals, Defense of Place would like to bring attention to the presence of these other resources to prevent their inclusion within the new BACV routes. Proposed routes for the BACV corridor must avoid all of the listed resources.

While federal law requires that the impacts on section 4(f) and 6(f) resources be considered in an EIR, which occurred in the FEIR for the HSR, it does not require that protected lands purchased by private conservation groups such as the Nature Conservancy or local land trusts be considered (unless those lands were purchased with funds from LWCF.) Included within the study area are large tracts of land such as the Nature Conservancy's Mount Hamilton project, and other conservation areas protected by private organizations. Conservation organizations and land trusts typically purchase private properties with the intention of either protecting them with a conservation easement or transferring them to public entities. Since lands purchased by conservation could easily become protected 4(f) or 6(f) land within the foreseeable future, the HSR BACV route must avoid these areas.

The routing decisions, and potential station locations of the HSR BACV corridor will have an impact on development growth patterns in Northern California. Because development induced by the HSR will create negative pressures on protected landscapes, those pressures and

¹ California Legislative Analyst's office
http://www.lao.ca.gov/analysis/2004/resources/ra_03_cc_resourcebonds_an04.htm 8/5/04

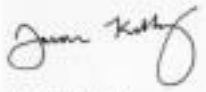
² California Lodging Industry Association. <http://www.clia.org/> 8/5/04

³ Lerner, Steve and Poole, William. "Open Space Investments Pay Big Returns." *Land and People* Spring 1999

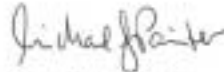
impacts must be considered in the EIR/EIS. The HSRA must use existing transportation corridors such as Altamont to minimize the negative impacts of induced development

Again, Defense of Place and Californians for Western Wilderness appreciate the opportunity to comment on the scoping for the Bay Area to Central Valley route of the California High Speed Rail. Please keep us informed of your decision in this matter by sending us the Draft EIR/EIS when it is released, and let us know of further opportunities for involvement in the planning process.

Respectfully submitted,



Jason Kibbey
Director
Defense of Place
Fort Mason Center, Bldg. D
San Francisco, CA 94123
415-928-3774
jason@rri.org



Michael J. Painter
Coordinator
Californians for Western Wilderness
P.O. Box 210474
San Francisco, CA 94121
415-752-3911
mike@caluwild.org

Comment submitted by: Robert Raburn - via email, robertraburn@ebbc.org

Date Received: 12/09/06 Subject: EBBC Comments on Regional Rail

Ashley:

Please see attached letter. Call me if there are problems downloading the letter or if I can be of assistance in any way.

I thank you and wish you the best during the holidays and new year.

-Robert Raburn, Executive Director

East Bay Bicycle Coalition www.ebbc.org

PO Box 1736 tel:(510)530-3444

Oakland, CA 94604 fax:(510)336-1604

info msg:(510)433-RIDE (7433)

"To promote bicycling as an everyday means of transportation and recreation"



EAST BAY BICYCLE COALITION

POST OFFICE BOX 1736 OAKLAND, CALIFORNIA 94604

www.ebbc.org

December 8, 2005

Ashley Nguyen
Metropolitan Transportation Commission
101 Eighth Street
Oakland, CA 94607

RE: Comments on Regional Rail Plan

Dear Ms. Nguyen:

Members of the East Bay Bicycle Coalition from throughout 33 cities in Alameda and Contra Costa counties appreciate the inclusive effort being made by the MTC to bring the Regional Rail Plan to the public with six initial open house meetings. I attended the November 29th meeting in Oakland and offered a public comment that I again wish to share after discussions with our members and board.

Among the ten goals presented as the Regional Rail Vision was #4, to offer good transit connections. We respectfully request that this goal be amended to include bicycle and pedestrian access and safety. As per the Safe Routes to Transit ideals contained in Regional Measure-2, transit projects should offer bicyclists access from all quadrants, the project itself should not create a barrier to non-motorized travel, and bicyclists should expect to have both on-board access as well as secure parking at transit stations.

We look forward to the mobility gains from expanded passenger rail service throughout California and the Bay Area. As we have already seen with the Capitol, Caltrain and ACE rail services, bicyclists represent a significant component of the passenger base. We hope to collaborate on planning for on-board train travel with a bicycle, future station access, and secure bicycle parking at stations.

Sincerely,

Robert Raburn
Executive Director
(510) 530-3444

TO PROMOTE BICYCLING AS AN EVERYDAY MEANS OF TRANSPORTATION AND RECREATION

Comment submitted by: Neal Johnson - via email, so01082@cobbsheriff.org

I have attached a power point presentation file. Please view the slide show. I made it 4½ years ago, so it is a bit dated, but still holds up.

Regarding High Speed Rail, I believe that it is not a priority and should be built only when magnetic levitation is deemed practical and when Los Angeles International Airport needs to be relocated east of Palmdale.

When those conditions exist, the route should be built as a single line from Union Station in Los Angeles to Sacramento International Airport. The route should begin in a tunnel under Union Station, enter the median of the state route 2 freeway, tunnel under the San Gabriel Mountains toward Palmdale, and have a station integrated into the new airport's terminal. Baggage check for the airport should be provided at Union Station.

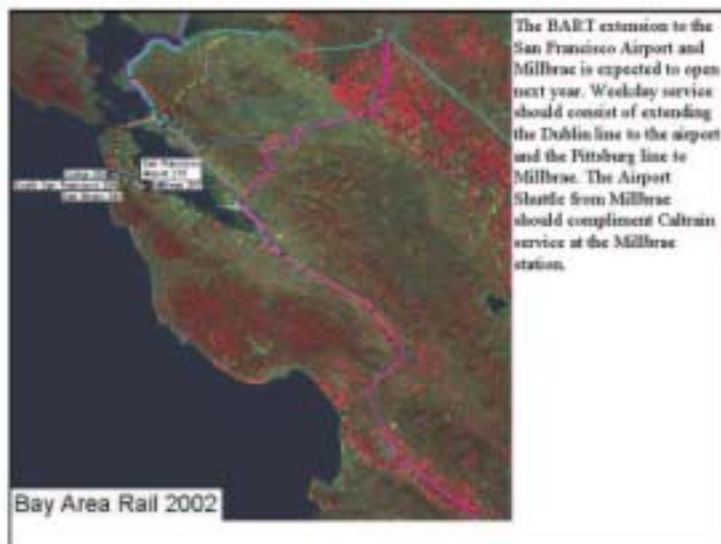
Future extensions of the HSR should emanate from north of the airport station toward Las Vegas, and south of the airport station toward Phoenix.

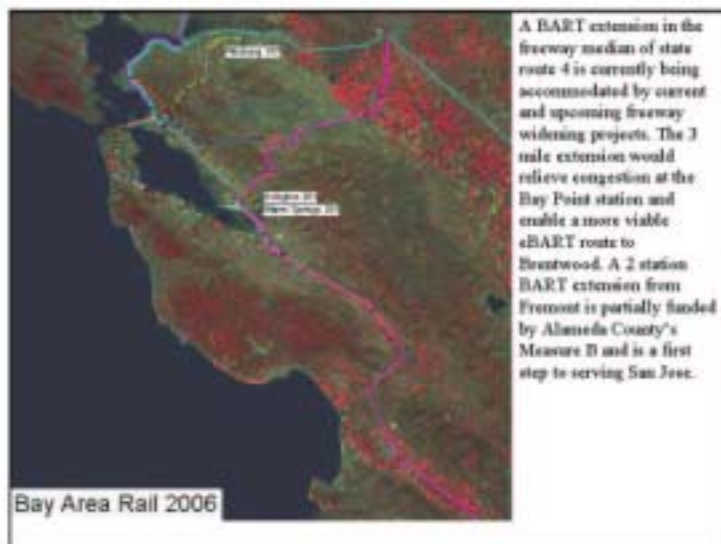
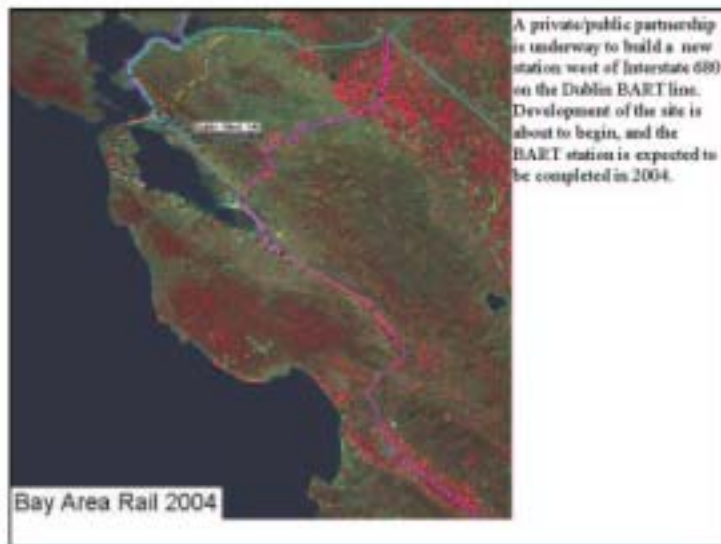
The route would then cross/tunnel through the Tehachapi Mountains to Bakersfield and the median of state route 99. Between Manteca and Stockton, it would cross over to I-5 in the vicinity of French Camp Road and end at Sacramento International Airport.

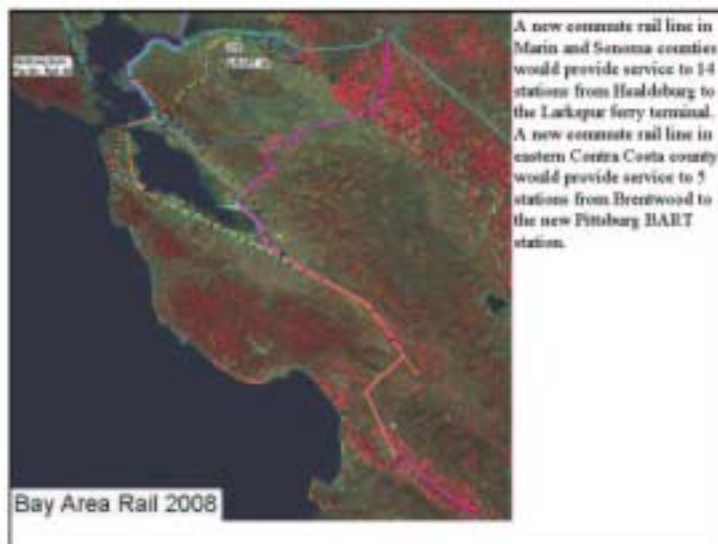
Access to the San Francisco Bay Area would be provided by BART, connecting to the HSR at stations in Manteca or Stockton. This would be accomplished by either extending BART east from Dublin/Livermore or Pittsburg, respectively.

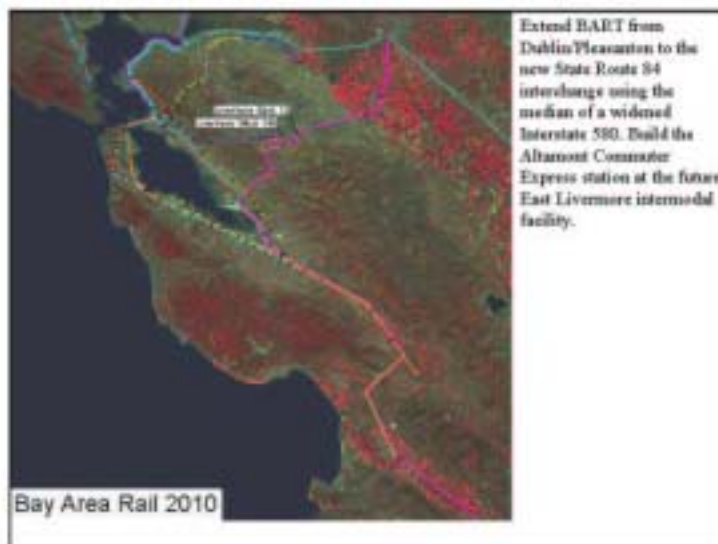
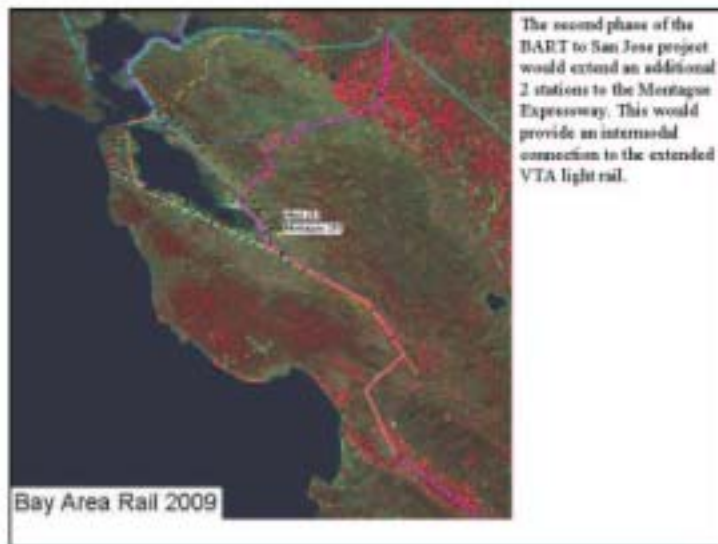
Again, High Speed Rail should be considered when a new Los Angeles International Airport is built. The airport should only be built contingent on the construction of High Speed Rail with a minimum operational segment between the airport and Union Station.

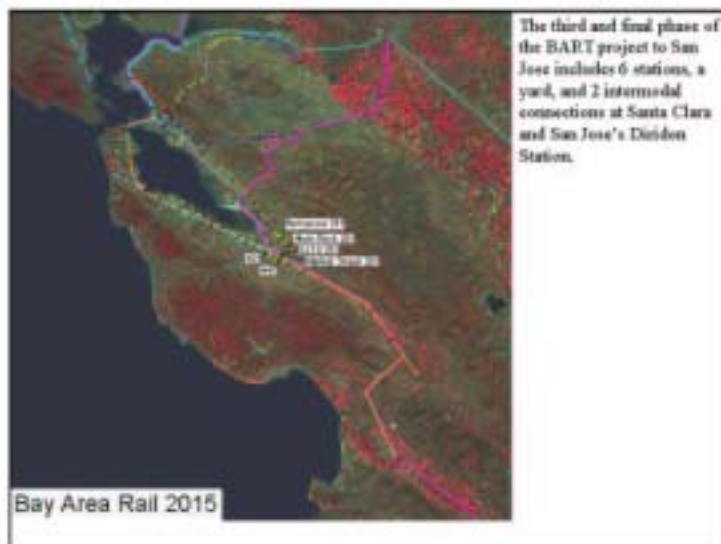
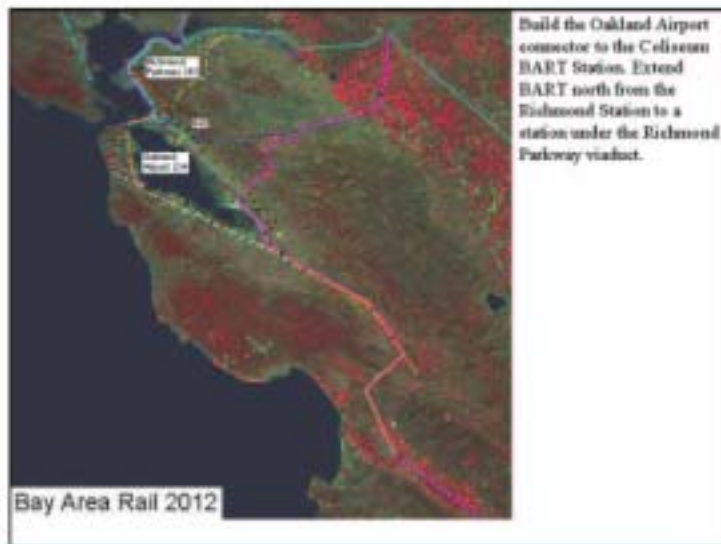
Neal Johnson
PO Box 2011
Marietta, GA 30061
nealjn@comcast.net
Cobb County...Expect the Best
www.cobbcounty.org

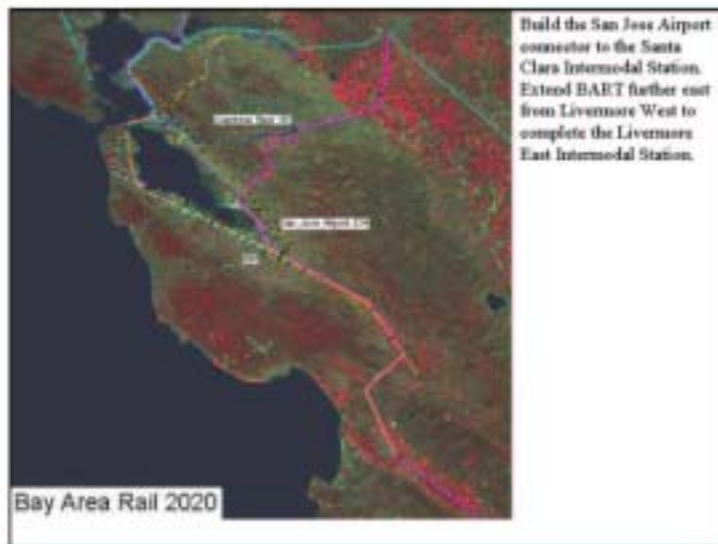


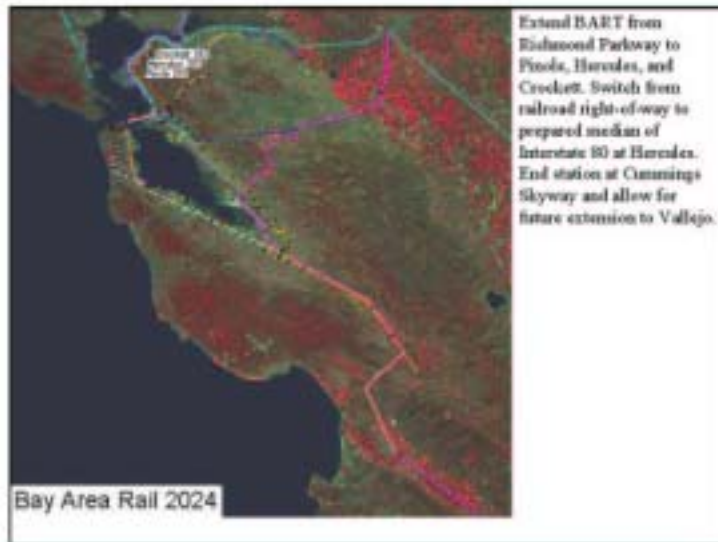












Testimony for the MTC public hearing
December 5, 2005

My Background:

Former Mayor of Dublin and currently a resident of Livermore.
Founder of the Livermore Valley Transit Authority –Wheels
Vice Chair of the original Measure B Committee (1/2 cent tax)
Former Chairperson of ACTA
Actively participated in getting the Dublin BART Station.

Issue:

The residents of Livermore have been paying for the BART general obligation bonds since 1962. In 1969, the first ½ cent sales tax was approved and made permanent on 1977. In addition, we have been paying the Measure B ½ cent sales tax.

Livermore is the only station in the original BART district that has not yet been planned and funded. We are asking the MTC and BART establish a policy that the Livermore Station will be build before any other extension outside of the original BART district, and this includes San Jose. It has been recognized that I580 is one of the Bay Area's worst commutes. We need to fix it.

We ask that funding be allocated to BART to begin the necessary studies and planning for Livermore as their next priority. The Greenvale Station would be a transit hub for ACE, Wheels, CCCTA, and San Joaquin Valley Transit, which opens up new funding possibilities.

Additional thoughts:

There are many creative ways to fund a BART station----Dublin has two different examples of that. Livermore is tired of waiting. We've paid for our ticket—we want our train!

Linda Jeffery Sailors
841 Chaucer Way
Livermore, CA 94551
(925) 449-7274
madammayor@comcast.net

Petition To Bring BART To Livermore

The residents of Livermore, CA have been paying a BART general obligation bond since 1962. In 1969, the legislature approved an additional ½ cent sales tax for BART, which became permanent in 1977.

Livermore is the only station in the original BART district that has not yet been planned and funded. We the undersigned demand the Board of Directors of BART and The Metropolitan Transit Commission establish a policy that the Livermore station will be built before any other extension outside of the original BART district, and this includes San Jose.

We ask that BART begin the necessary studies and planning for Livermore as their next priority.

<u>Name</u>	<u>Address</u>
-------------	----------------

Colleen M. Conner	275 Carmichael Livermore 94550
Stephen D. Peterson	1092 Punnett Dr. Pleasanton 94566
Brian Marshall	1222 N. P St Livermore CA 94551
Lily Xu	2753 Lucca Ct Livermore CA 94550
Ray Kelly	3136 Heclasa Ct Pleasanton CA 94566
Thomas Wagner	1320 Anglin Livermore CA 94550
Muriel F. Dean	2163 Mercury Road Livermore
David Thompson	2772 crater Bl. Livermore
Willie C. Turner	411 Canyon St Oakland CA 94612
John L. Loomis	2799 Cedar Rd Livermore CA 94550
Merlin Carlson	490 So. P St. Livermore Calif 94550
Don Crocker	2589 College Ave,
Blanche & Mark	1186 Lakeside Ave Livermore CA 94551
Angela Tolal	55 Diamond Dr. Livermore CA 94550
Sherry Woodruff	1066 Innsbruck St. Livermore CA 94550

Please return this signed petition to Linda Jeffery Sailors, 841 Chaucer Way, Livermore, CA 94551. For more information, call (925) 449-7274.

4

Petition To Bring BART To Livermore

The residents of Livermore, CA have been paying a BART general obligation bond since 1962. In 1969, the legislature approved an additional 1/2 cent sales tax for BART, which became permanent in 1977.

Livermore is the only station in the original BART district that has not yet been planned and funded. We the undersigned demand the Board of Directors of BART and The Metropolitan Transit Commission establish a policy that the Livermore station will be built before any other extension outside of the original BART district, and this includes San Jose.

We ask that BART begin the necessary studies and planning for Livermore as their next priority.

Name	Address
Betty Miles	1316 St. Mary St. Livermore
Archie Mazzuca	3265 Mammoth Ct. Pleasanton
Virginia McBride	2211 College Ave. Livermore
Margaret K. Henson	239 Rock Ave. Livermore
William Gordon Smith	467 4th Camino, Livermore, CA 94550
Peggy K.	5822 Tidwell Ave., Livermore, CA 94550
Wm. H. Haskins	587 Cross Creek Pl. Livermore 94550
Ed. Haskins	1583 Cross Creek Pl. Livermore 94550
Frank W. Chambers	1583 Cross Creek Pl. Livermore Ca 94550

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Name	Address
Debbie Peck	553 Linden St Livermore
Dianna Geyer	621 Jade Livermore
Bill Geyer	621 Jade Livermore
John Gordon	51 Mendell Ln Livermore
Cannir Keyser	3453 Napa Valley Transon
Keith Tolson	858 753 #1002 Livermore, CA
Ted Waczkara	1587 Quince Creek Pl Livermore, CA
Wanda Chan Gorb	3550 Pacific Apt 705 Livermore
PAT RICHMOND	1360 Kathy Ct Livermore
Joan Wilkinson	878 Edith St Livermore
Evangelina Jones	1120 MADISON St Livermore
Patricia	740 Canterbury Ave. Richmond
Marion Stearns	236 Charlotte Rd. Liver ' 9455
Joan J. Jones	623 Bentley Pl. Livermore 94551
Danil Noy	1455 Cypress Dr Tracy 95376
John Jones	1082 Elgin Ct Liver 94550
Marianne Russ	11262 Drake Way Liver 94550
Margaret Murray	293 Calaveras St Liver 94550
Betty Turnbull	1364 Claremont Way

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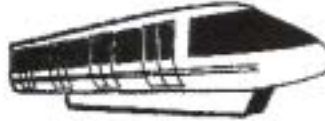
Name	Address
Jim Barry	10017 TESSLA RD, L.
Mark Ford	8500 Crane Ridge Rd Liverm
Jimmy Sanders	841 Chaucer Way Livermore
Michael W.	2256 HAVEN RD LIV.
Larry Barclay	625 CALIGNE AVE LIVERMORE, CA 94560
Dennis Darby	621 Caliente Ave Livermore 94
Bill Ryan	1021 JAKE PL LIV 94550
Paul Carter	Harris Ave Rd, Liv 94550
Linda Jeffery	151 CULLEN ST, LIVERMORE 94550
James Jeffery Sanders	841 Chaucer Way, Liv. 94551

Please return this signed petition to Linda Jeffery Sanders, 841 Chaucer Way, Livermore, CA 94551. For more information, call (925) 449-7274.

Georgia Monorail Consortium

Transit and Intercity Monorail Systems

Owen Transit Group, Inc.
Aebersold Technologies Corporation
AAR Corporation
Control Corporation of America
Transit Operating Services Company
MACTEC Engineering, Inc.
Tindall Corporation



481 S. Keeler Woods Drive
Marietta, Georgia 30064
phone (404) 683-1331
fax (770) 428-1808
www.OTG-inc.com
billowen@otg-inc.com

December 14, 2005

Metropolitan Transportation Commission
101 Eighth Street
Oakland, CA 94607

Subject: Bay Area Regional Rail Plan Comment:

Dear Project Management Team Members,

On behalf of the Georgia Monorail Consortium, we are pleased at the opportunity to comment on the subject plan. We wish to comment on 4 specific planning areas and also provide information on our proposed alternative rail design for 21st Century transit.

Our central comment takes the form of a question: Why can we only think in terms of environment-unfriendly Railroad Trains, and cost-prohibitive BART Metro systems? What is so urgently needed at this stage of transport expansion in the Bay Region is a new lightweight rail design that is both affordable to build and operate, and more flexible for reaching into existing as well as new service areas.

While there is no one transportation mode that will solve all problems, the consideration of new rail system designs could be a relatively fast, easy and inexpensive way to provide effective service in the Bay Region. The fact remains that the cost of expanding current Metro rail systems is out of reach due to tight Federal and State spending, and burdensome local taxes. While conventional Railroad service on existing rail corridors could be more affordable than building new BART tracks, this transport mode is inefficient and environmentally unsound for the connector service desired to the Oakland International Airport, the downtown SF Transbay Terminal and the Larkspur Ferry Landing.

The attachments to our comments below contain specific information about the HighRoad Rapid Transit System (HRTS) that we are making available for appropriate consideration by the Regional Rail sponsoring authorities and study planning consultants (LTK Engineering). The key features of the proposed HRTS monobeam system are as follows:

- Not only does HRTS Monorail excel at people-moving performance, but at one-fourth of the cost of heavy rail and half the cost of light rail, it is among the most affordable systems today
- The dual-sided monorail (bi-directional), with single or double vehicles is an entirely different concept of operation from heavy rail and conventional railroad trains. HRTS runs smaller lightweight vehicles (120 passengers) and more frequent service (30 second headway) to accommodate people in time and space. This leads to smaller stations which means less cost and less space.

Georgia Monorail Consortium
Transit and Intercity Monorail Systems

- Operating costs are estimated to be less than alternative systems due to lighter vehicle weight, lower energy use and automated controls. Lower operating costs, can more easily cover its costs from farebox revenues and not require additional operating subsidies. Lower operating costs may also allow recovery of the cost of construction. This efficiency can eliminate the need for added taxes for system construction and operation subsidy
- Elevated operation is less obtrusive than other forms of rail including earlier monorail designs. (6.5 feet for monobeam vs. 15 feet for monorail vs. 25 feet for conventional and heavy rail.
- The urban and the intercity systems use compatible guideways permitting urban system travel up to 70 mph, and longer distance HS service (Silver Bullet) of more than 200 mph.
- Modular construction and less disruption during construction periods are important benefits of this design. The first beam of the Las Vegas monorail system took less than three hours to install since it was fabricated off site. And, that beam was installed in about five months following ground-breaking. We estimate the rate of guideway construction at about 20 miles per year, assuming 3 shift crews working year round
- Lower construction costs, are demonstrated below in the estimated costs for some proposed extension lines in the Regional Rail plan, and for a 100 percent replacement of classic BART.

Comments Section

1. Improved Connections Between Passenger Trains and Other Transit Connections:

We urge MTC to consider alternative means for connecting service between the Caltrain terminus in SF and the downtown Transbay Terminal. We believe the proposed construction of a railroad tunnel to accommodate extension of Caltrain's direct service into the downtown area is expensive, extravagant, and environmental undesirable. The modern trend worldwide is to move the 19th century railroad train whenever and where ever possible, away from urban centers. Even if tunneling funds materialized as part of an overall California High Speed Rail initiative, which is still uncertain at this time, newer transit rail designs can provide "lighter" alternatives for this connection at only a fraction of the cost of railroad tunneling. With SF Muni buses providing the current connector service into the SF downtown area, then it seems appropriate to offer the remaining Cal Train passengers a connection to the Transbay Terminal by elevated and automated guideway service. An elevated system is particularly important to avoid accidents and adding more street congestion in the downtown area. Furthermore, the easier-to-build alternatives shorten and simplify the construction activity that is economically disruptive to local businesses.

The current Oakland Airport Connector project is a perfect example of where alternatives are being used. In this case BART is seeking an alternative means to its own "Metro System" technology for making a more cost effective connection to the International Airport.

Similar consideration can be made for a connection between the San Rafael train station and the Larkspur Ferry. We agree that the proposed SMART rail system in Sonoma and Marin must have an easy and quick connection with the ferry service in Larkspur to be successful.

2. Expand the Regional Rapid Transit Network

We urge MTC to consider less costly alternative rail designs for expanding the existing Rapid Transit Network in the Bay Area to any of the proposed areas shown on the planning map. A major constraint to expansion has and will continue to be, the high cost per mile of extending the current system, especially in view of tighter Federal/State spending (growing Federal/State budget deficits), and more cautious spending by a local population already burdened by heavy sales and other taxes and bond indebtedness. We believe that the Bay Region planning must take into account that we are entering a new era of scarce funding resources for transport expansion projects.

Alternative design systems must also be highly oriented to individual service to attract people away from their privately owned vehicles. The Railroad passenger service offers some bay area commuters an alternative to their autos, but the speed and frequency of this service has not appreciably improved in 100 years.

We do, in fact, need to build E-BART between Bay Point and Brentwood but not with BART passenger trains that are too expensive to build and operate and which cannot improve the speed and timeliness of individual service.

We do, in fact, need to extend BART roughly 16.3 miles from Fremont to San Jose, but not with an estimated \$ 4.7 billion BART system. Furthermore, expanding the ACE system may be faster than building a new BART line, but certainly not much faster than the time needed to construct the guideway for a new lightweight and streamlined system design making use of modular and prefab construction methods. Also, the use of new elevated designs can bring the transit system into the downtown area of San Jose without the need for expensive underground tunneling.

3. Consider Various Rail Technologies Including New Designs of Existing Technologies

We support consideration of various rail technologies and urge MTC and the CHSRA to also include in the planning studies, an exploration of "new" rail designs of existing technologies. Rail transport technologies have progressed from the 19th century railroad design, to the 20th century "Metro" train design. Two other rail designs were introduced in the early and mid 20th century for local area transport, namely, the light rail system, and the elevated monobeam systems (monorails). Both provide low-impact (environment) and effective service but only as low-speed and low-passenger volume carriers and are not suited for rapid transit serving densely populated areas.

Specifically, newer lightweight rail designs (21st Century) with a smaller infrastructure, can boost the speed and carrying capacity of 1st Generation monorail designs. Furthermore, the streamlined design can provide a lower build/operate cost structure, further reduce noise and other environmental impacts, and improve service frequency by offering passengers a ride that meets their personal schedules (more frequent service). The new designs can be constructed with existing and proven off-the-shelf components already in operation. (See attachment 7)

We believe the 2nd Generation monorail would also supply proposed High Speed service connecting the Bay Region to the Central Valley. The newer designs can provide speeds up to 214 miles per hour. In the prior century, the introduction of high-speed railroad train technology for rapid long distance service in Japan, Europe and elsewhere, has proven effective but also expensive to build and operate and are not

without significant environmental concerns. Thus, both HS railroad technology and Metro train systems both have environmental and fiscal constraints. Nonetheless, we believe high-speed rail service using more current technology can still be considered highly desirable as an alternative to growing traffic congestion along California's interstate highways and inside our airports. In the interests of providing lower cost, environment-friendly service, we hope the MTC and CHSRA will consider alternatives to Railroad and Metro technologies.

In summary, we believe it is important that consideration be given to newer streamlined, rail designs that are cost effective, and environmentally sound and that can address rapid mass transit needs on a regional, inter-city, and statewide basis.

4. Rail Investment for Transit-friendly Communities, Business, and Urban Redevelopment.

We believe that rail transit investments can achieve these goals if the rail systems can be tailored to fit, a low-impact system with a friendly appearance that neither intrudes nor distracts from commercial and leisure activities. Achieving "low impact" means the transit system, consisting of guideway, vehicles, and stations, must be as small as possible without sacrificing the need for timely service and passenger volume. In the past this has meant placing rail system cars or trains, and stations completely underground and out of view when possible, or in the case of at-grade systems, further away from the areas of activity. Consideration needs to be given to less-intrusive low-impact systems so that rail transit can bring humans directly and timely into the activity area without disrupting the area. Rail systems that have a smaller footprint, i.e. small stations, individual cars rather than trains, quiet operation etc. can enter shopping centers, sports complexes, downtown areas, and other transit converging stations all with minimal disruption to area activities. This feature allows rail transit to serve people which is the basis for economic development or renewal in the transit areas or destinations.

One example could be the proposed expansion to San Jose, where the new low-impact elevated design can bring service into the downtown area with minimal disruption to economic activities during the construction period and virtually no disruption during subsequent operation of the system. Other examples are connection links from CalTrain to Transbay Terminals into downtown SF or from downtown San Rafael to the Larkspur Ferry landing.

Alternative Design of Existing Technology

We present the attached material about the HighRoad Rapid Transit System (HRTS) to MTC and CHSRA for the planning study. A comprehensive overview of all HRTS design components can be found in the HighRoad Technical and Management Briefing Book (see attachment 6). We trust this information will be considered in the "screening phase of the Rail Plan Step-by-Step process. Please do not hesitate to contact us for further information or discussions at any time.

To further demonstrate the potential of HRTS to provide cost effective service to the Bay Region, we offer below the preliminary cost estimates (for planning purposes only) for various proposed projects. To further illustrate the streamlined design of HRTS, we estimate the rate of guideway construction at about 10 miles per year, assuming 3 shift crews working year round.

Finally, we included a cost estimate for BART replacement using HRTS because of the previous suggestions from other transit consultants that BART compare the cost of 100 percent replacement with a

George Mason University
Transportation and Development Technologies

new system vs. the cost of a very long-term step-by-step renovation of its current 35 year old system. The importance of such a comparison is particularly acute when considering the words from the Draft Short-Range Transit Plan & Capital Improvement Program: FY06 through FY15:

"Although the completion of the first generation renovation program (\$1.5 Billion) represents a significant achievement for which BART and its funding partners can be justifiably proud, there remains the formidable challenge of funding and implementing a second or next generation renovation program, which, by necessity, will go much deeper into the physical plant of the system."

Estimated Cost of Proposed Expansion Projects Using the HighRoad Rapid Transit System.

Oakland Airport Connector Line (3.2 miles with travel times less than 3 minutes): \$ 214 million

E-BART Transit Line (23 miles, 6 stations):


- Regular Transit Service (70 mph service): \$ 950 million.
- High Speed (Silver Bullet Version with 214 mph service): \$ 1.02 Billion.

Note: Both Regular and High Speed Service use the same guideway and station infrastructure

Fremont to San Jose: (16.3 miles, 4 stations): \$ 700 million

BART "Next Generation" Replacement: (104 miles, 43 stations): \$ 4.2 billion

Sincerely,


David T. Gallo
Director of Marketing,
Georgia Monorail Consortium, Inc.
415-931-1895
dgallo1@mindspring.com



Attachments: HighRoad Rapid Transit System:

1. HighRoad Rapid Transit System: General Description and System Specifications
2. Owen Transit Group, Inc. (HighRoad Design Company)
3. HighRoad and Heavy Rail
4. HighRoad and Light Rail
5. Silver Bullet and Commuter Rail
6. HighRoad Technical and Management Briefing Book
7. Confidence in HighRoad Design
8. Selected HighRoad Design Illustrations

CC California High Speed Rail Authority

Georgia Monorail Consortium
Technical and Design Team

RAIL PASSENGER ASSOCIATION OF CALIFORNIA

1008 10th St-217, Sacramento, CA 95814, 877-288-3103
WWW.RailPAC.org

Contact: Richard Silver, 888-508-2640
Executive Director, RailPAC

REGIONAL RAIL PLAN

The Rail Passenger Association of California (RailPAC) is a statewide membership organization working for the expansion and improvement of passenger rail service in California.

RailPAC is encouraged that MTC and the various rail agencies serving the bay area have joined together in creating a comprehensive Regional Rail Plan.

While there is no one transportation mode that will solve all problems, the utilization of existing rail corridors in the bay area for an expanded and upgraded rail network, could be a relatively fast, easy and inexpensive way to provide efficient service to the greatest number of people. Many of these corridors have had passenger service in the past and are in public ownership.

With the proper funding, cooperation of the freight railroads, and a commitment on the part of all involved agencies, service on most of these routes could be started quickly.

But, while we support and applaud this effort, we are concerned that too much effort is often placed in creating new systems without thinking how to improve and expand already existing systems. We are concerned that little thought will be given on how to actually pay for the operation of any new service.

Specifically, *we don't* need to spend \$5 billion to extend BART from Fremont to San Jose, when for \$1.5 billion we can upgrade and expand the ACE, Caltrain and Capitol Corridor systems faster and provide service to more riders in the South Bay, including the Dumbarton Corridor.

We *do not* need to build from scratch the "E-BART" service between Bay Point and Brentwood, when an even more successful service can be created on the "San Joaquin" route that operates on the UP and Santa Fe tracks. Besides costing much less, it can be done faster, serve a wider area, and not require the introduction of a new and incompatible transit mode.

We *do NEED* better connections between services such as BART and ACE in Fremont of Pleasanton, BART and Amtrak in West Oakland and construction of the new Transbay Terminal in San Francisco.

We *do not* need to construct more freeway lanes from the San Joaquin Valley, when for a fraction of the cost ACE could be extended to Modesto and even Turlock to carry daily workers into the Bay Area.

The proposed SMART rail system in Sonoma and Marin *must* have an easy and quick connection with the ferry service in Larkspur to be successful.

RailPAC supports the construction of a statewide High Speed Rail system (HSR). Any REGIONAL RAIL PLAN must include HSR and not include anything that would delay its construction and operation. Done properly HSR can fill the needs of infrequent, regular or daily (commuter) riders. But, HSR is at least 10 years and perhaps as much as 20 years away and we need to keep in mind what can be done quickly, cheaply and would serve the greatest number of regular riders.

Below are several suggestions for new services to areas with some already existing rail facilities that could easily be upgraded for passenger service.

STOCKTON to OAKLAND/SAN FRANCISCO (via Martinez) Service would operate over the existing San Joaquin intercity rail service route. While tracks are already built to passenger standards, some upgrade work would be needed to increase speed and to allow increased frequency. Trains could serve Stockton, West Stockton, Oakley, Antioch, Pittsburg, Martinez, Crockett, Rodeo, Hercules, Pinole, San Pablo, Richmond-BART, Berkeley, Emeryville, Oakland. A possible extension from Martinez to Byron on the UP Moccasin line should also be considered.

OAKLAND to SAN JOSE (via Newark) Service would operate over the existing Capitol Corridor intercity rail service route. While tracks are already at passenger standards, some work would be needed to increase speed and to allow increased frequency. Besides the current Capitol Corridor stops, trains could serve, Union City, Newark, Agnew, Santa Clara, and onto Tamien to connect with VTA light Rail.

SOLANO COUNTY/SAN FRANCISCO via VALLEJO FERRY The City of Vallejo operates a very successful ferry service between Vallejo and San Francisco. Very near the ferry dock in Vallejo there is a rail line, currently use for freight service, that extend to the UP mainline at Suisun/Fairfield. At Napa Junction tracks branch off to the City of Napa. Beside attracting riders in the fast growing Vallejo-Napa area, travel time between San Francisco and points along the UP mainline north of Suisun/Fairfield would be faster.

Lastly, we hope any Regional Rail plan would include a discussion of the possible merger of some or all of the Bay Area's rail systems. There is no logical reason for the Capitol Corridor and the San Joaquin services not to merge into one system. The same applies to ACE and Caltrain. Merger would increase efficiency while at the same time affording opportunity to reduce cost through greater size.

December 19, 2005

Dear: Ashley Nguyen, MTC
Doug Kinsey, MTC
Tom Matoff, LTK Engineers
Brent Ogden, Korve Engineers

Subject: Regional Rail Plan Community Workshops

This letter is a follow up on my comments at the workshops. It describes a proven public transport strategy able to cost-effectively serve our large multi-centered region. Application of this pulsed-hub network strategy would lead, in my opinion, to a world-class system for the Bay Area.

This letter identifies key aspects of the proposed pulsed-hub network strategy. For more details please see the attached paper, "Converting a Large Region to a Multi-modal Pulsed-Hub Public Transport Network," published by the Transportation Research Board.

Figure 1 shows a pulsed-hub network in operation. With timed transfers at hubs, a traveler has seamless access to the entire public transport network. When route headways are short (e.g., most San Francisco Muni lines), transfers need not be timed. However, for most of the Bay Area outside the core, and especially for the commuter rail lines, the headways typically are a half-hour or longer, timed transfers are critical if a traveler needs to use more than one route.

With timed transfers, the links between the hubs can be any mode—high-speed rail, intercity rail, commuter rail, heavy rail (BART), light rail, express bus on HOV lane, even ferries—provided the link mode has reliable travel times, and provided transfers at hubs are quick and convenient. Pulsed hubs work best, if hubs are located at major trip generators, such as downtowns with destinations within walking distance, and at nodes in the public transport network with local buses, etc.

My confidence that we can cost-effectively develop a pulsed-hub network for the greater Bay Area stems from the fact that a highly successful one exists in a region of Europe of similar size, population and geographic constraints (See Figure 2). As of December 2004, the Swiss have in operation a truly comprehensive timed-transfer system for their entire country. It uses high-speed express trains to link hubs together, and provides timed transfers for all other routes including local trains, buses, trams, ferries and funiculars. The Swiss strategy incorporates several key techniques that simplify the technical problems associated with developing a region-wide, comprehensive timed-transfer system (see attached paper). These techniques include a cost-effective investment strategy of investing "only as necessary" to establish reliable timed transfers at the hubs. This provides an exact criteria for the designers to know when a proposed investment is sufficient, but also when it is still not enough.

The proposed pulsed-hub network strategy addresses many of the concerns I heard at the two workshops I attended, including:

1. *High Speed Rail Options* – The strategy works equally well with each of the three high-speed rail options to be studied: access to the Bay Area from the south, access from the east, and no high-speed service.

2. *Connectivity* – The pulsed-hub strategy works to integrate existing Bay Area transit services, including connecting rail to rail, rail to bus, bus to bus, as well as connecting to ferries and airports. As I see it, the regional rail plan would both provide backbone service and establish locations for transfer hubs between all modes.
3. *System Expansion* – A pulsed-hub network can be designed to both function on its own and also to incorporate the high-speed rail system as it develops. By adding other pulsed-hubs, the network can be extended out into other regions of California, including our neighboring counties and potentially the whole state.
4. *Reliability* – Since schedule reliability is critical to attract and keep choice riders, and essential for timed transfers to work, the investment for a pulsed-hub network focuses on creating and maintaining reliability.
5. *Freight* – The strategy also works to improve freight operations. Freight operations not only gain the benefit of public rail investment during off hours as happens today, but with a pulsed-hub system they can have reliable service during the day by providing scheduled windows for freight operations.
6. *Phased Implementation* – The pulsed-hub network can be assembled in phases. It took 20 years in Switzerland from initial planning to full operation (including winning two referendums—with improved travel times helping to sell it to voters). It was implemented piecemeal as components were brought on line.
7. *Land Use and Smart Growth* – Although the land use of much of the Bay Area is low-density and auto-oriented, a pulsed-hub network can concentrate quality transit service on those centers and corridors with higher densities, therefore supporting Smart Growth.
8. *Understandability* – Pulsed hubs with repeating schedules allow the construction of a “schedule map” that provides a simple graphic that policy makers and the public can easily understand. It allows users to conceptually understand how to navigate the system including alternative paths. (See the right half of Figure 2 for an example of a Schedule Map.)
9. *Last Mile Connections* – In a pulsed-hub network the time-transfer schedule repeats over the course of the day. This schedule regularity makes it easier to connect local buses and shuttles.
10. *Disaster Preparedness* – A full multi-hub network provides alternative paths, if some link were ever damaged in an earthquake.

Thanks for the opportunity to address the transportation needs of the greater Bay Area. I would be happy to answer questions and make presentations as is useful for this study.


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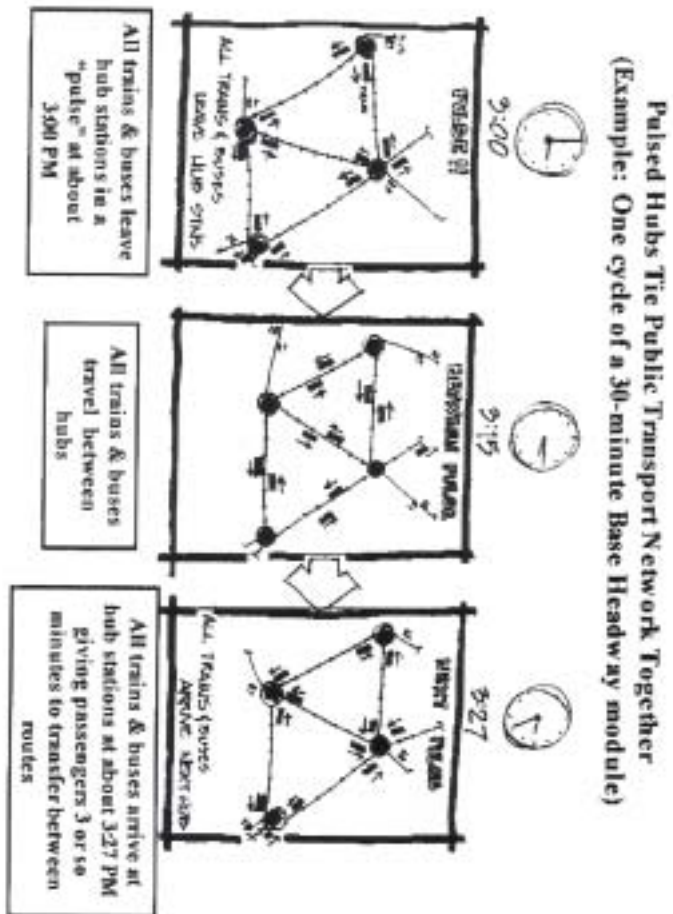


FIGURE 1 Pulsed-hub Network Concept

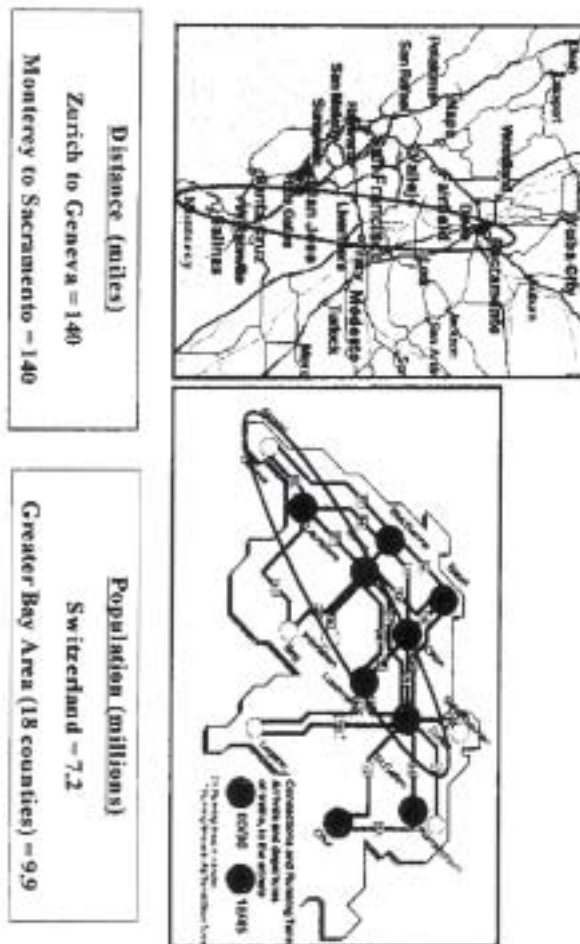


FIGURE 2 Greater San Francisco Bay Area and Switzerland Comparison

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Note to reader. This paper represents works in progress in an ongoing research project. It was presented at the Transportation Research Board (TRB) Annual Meetings and published in 2003.¹ Subsequently, talks with the various transit agencies have modified my thinking, particularly about BART's role in a regional timed-transfer system, so treat this paper as a first iteration towards developing a comprehensive region-wide transit system.

Converting a Large Region to a Multi-Modal Pulsed-Hub Public Transport Network

Ross R. Maxwell

This paper, using greater San Francisco Bay Area as an illustrative case study, investigates the applicability of the cost-effective strategy used in Switzerland that successfully integrates public transport for their entire country into a multi-hub timed-transfer system (pulsed-hub network). For the existing and proposed Bay Area rail service routes, the study investigates the optimal repeating (clock-face) base headway for the pulsed-hub network, the hub spacing and locations (ideally adjacent to dense and diverse land uses providing destinations within walking distance, preferably a downtown), and hub station design to minimize transfer walk times. A pulsed-hub network schedule, because of the repeating schedule, can be shown as a schedule map that represents typically a one-hour schedule module. The schedule map, showing the routing and travel times between hubs and the pulse timings by means of a clock-face at each hub, becomes a tool both to design a multi-hub system and to communicate with all stakeholders including policy makers and the public. The illustrative pulsed-hub network uses existing and proposed rail services and express buses on HOV lanes. These include: the two publicly-owned regional rail systems, BART and the Peninsula Commute Service (Caltrain); the intercity Amtrak-operated Capitol Corridor trains between San Jose, Oakland and Sacramento (assuming that reliable passenger service can be maintained by the freight railway which owns the tracks); the proposed Sonoma Marin Area Rail Transit and Dumbarton Rail Bridge routes; and the proposed California High Speed Trains, currently in environmental review.

INTRODUCTION

Other authors in previous work have developed and analyzed comprehensive timed-transfer systems for urban areas under the jurisdiction of a single public transit agency.^(1,2) (In a timed-transfer, transit vehicles, such as buses or trains, are scheduled to stop near each other to allow passengers to transfer between the vehicles via a short walk.) This paper investigates, in an illustrative fashion, the establishment of a comprehensive timed-transfer system for a large multi-centered urban region with multiple public transportation agencies and requiring capital investment.

The region selected for the illustrative case study is the central California region centered around the San Francisco Bay Area and extending from Monterey to Sacramento. The San

¹ Ross R. Maxwell, "Converting a large region to a multimodal pulsed-hub public transportation network," *Transit: Planning and Development, Management and Performance, Marketing and Fare Policy, and Intermodal Transfer Facilities*, (Washington, D.C.: Transportation Research Board, National Academy of Sciences, 2003).

San Francisco Bay Area has a strong core-oriented public transportation system. However, as with most metropolitan areas in the United States, the suburban areas are highly automobile oriented and present the usual problems for serving trips by transit.

The 18-county greater San Francisco Bay Area has over 30 public transport carriers with local, feeder and express buses, ferries, light rail transit (LRT), rapid rail, commuter rail, intercity rail operating on freight railroad tracks, and potentially in the future the California Corridor High Speed Train service. Schedule coordination is spotty—mostly internal to a carrier, or bus-to-trunk-line-rail or bus-to-ferry connections. The study focuses on establishing a system of rail-to-rail transfers, with emphasis on possible near-term connections.

The model for the case study is the Swiss Federal Railway (SBB). The Swiss have developed a practical and cost-effective strategy to organize and maintain a comprehensive multi-hub timed-transfer public transport network for their entire country. The greater Bay Area, extending from Monterey to Sacramento, is similar to Switzerland with respect to population and distances between cities (see Figure 1). Also, the San Francisco Bay and the ridgelines of the Coast Range effectively constrain development, as do the lakes and mountains of Switzerland, creating transit corridors. Given this geographic similarity, establishing and maintaining a fully integrated multi-hub network of similar size and complexity appears feasible. The major difference for the Bay Area is the much higher automobile use with low-density, freeway-oriented land-use.

In summary, this case study investigates the applicability of the Swiss strategy for the more auto-oriented greater Bay Area.

PULSED-HUB NETWORK OVERVIEW

The term used in this report for a Swiss-style comprehensive timed-transfer public transport system is a **pulsed-hub network**.⁽³⁾ Figure 2 illustrates the pulsed-hub network concept. At each hub the buses and trains converge and depart in a scheduled 'pulse' that provides travelers with timed-transfers between all routes. Easy transfers at hubs provide travelers with 'seamless' access to the entire the public transport network; thus, transfers become a benefit rather than something to be avoided. Moreover, a pulsed-hub network can integrate all transit modes from local buses to high-speed trains and maglev; provided, however, that the transfers at hubs are quick, convenient and reliable.

Notice in Figure 2 that hubs are set a nominal 30 minutes apart, or roughly 27 minutes for travel time and three minutes for transfer time. The distance between the hubs depends upon both the travel speed and schedule reliability of the transit mode—the faster the mode, the greater the possible distance between hubs and likewise the more reliable the mode, the tighter the possible schedule with less padding and more travel time.

In a multi-hub system, the timed-transfer pulse timings are coordinated by repeating the same **base headway** throughout the day. (*Base* refers to the off-peak schedule, and *headway* is the scheduled time interval between successive buses or trains.) For example, in Switzerland, the same base schedule repeats for about 16 hours a day, seven days a week. During peak travel demand hours, additional trips may be added as required.

The Figure 2 example shows only the primary hub-to-hub routes that operate on 30-minute headways. Other routes not operating on 30-minute headways can also participate in the pulse, provided that their headways mesh evenly with the 30-minute pulse, such as 10, 15, 60, 90 or 120 minute headways. Since these are all **clockface headways** (the bus or train leaves at the

same time or times every hour), they are easy to remember, and a user can quickly learn which trip to use in order to participate at the hub timed-transfer pulse.

Notice in Figure 2 that trains (or buses) traveling between two hubs meet halfway at the 15-minute mark, which, therefore, could also be a pulsed-hub station. Thus, in a pulsed-hub system, *hubs can be spaced at one-half the headway*. For example, if the base headway is 60 minutes, the hubs can be spaced 30 minutes apart. Or if the base headway is 20 minutes, then the hubs can be spaced 10 minutes apart, or some even multiple, such as 20, 30, 40, 50, 60, or 70, minutes apart.

In summary, a pulsed-hub network is a multi-hub, timed-transfer system with a repeating fixed-interval clockface schedule.

Swiss Strategy

The SBB in their Rail+Bus 2000 Plan developed a cost-effective pulsed-hub network for all of Switzerland. Figure 3 shows the Swiss plan projected to be in operation by the year 2005. This comprehensive pulsed-hub network, using intercity rail as the backbone, links all public transportation modes including high-speed trains, urban transit, buses, ferries, funiculars, cableways, and private railroads. In an era when other public transportation services in Europe are losing patronage to growing automobile use, the Swiss pulsed-hub network is holding its own.

The SBB employed three analytical techniques, as follows, which working together both simplify the pulsed-hub network design process and optimize the investment requirements.

Schedule Map

A pulsed-hub network, since the same basic schedule repeats throughout the day, can be represented as a **schedule map** (see Figure 3). Notice the clock faces at each transfer hub indicate the nominal pulse transfer times, creating a graphic easy to understand. The travel times shown are for the express trains that connect between hub pulses. More detailed schedule maps showing local trains are also possible. Peak-period-only trips, such as commuter trains, would not be shown on a schedule map. In developing a pulsed-hub network, the schedule map becomes an important communication tool between planning, operations, patronage modeling (marketing), engineering, policy makers, as well as the public.

Modular Time-Distance Diagrams

Between each pair of hubs, the same schedule module repeats throughout the day (see Figure 4). During each repetition of the schedule module, such as every hour, the trains (or buses) leave at the same time, cross midway and arrive at the other station at roughly the same time, creating a symmetrical pattern. **Modular time-distance diagrams**, which graphically connect a schedule module with the corresponding track and station plans, help to optimize investment requirements. First, for each hub-to-hub link, a symmetrical time-distance diagram is created for the busiest module of the day (or week) by assigning a window for each scheduled train, whether a hub-to-hub train, local train, commuter train, long-distance passenger train, or freight train. Second, this peak-period module is analyzed using train operation simulation tools to develop and test the minimum investments necessary to achieve the required hub-to-hub travel times and to eliminate any interference that might otherwise reduce the reliability of the timed transfers. By optimizing the busiest module of the day or week, the design by default also optimizes all the other schedule modules of a week. This procedure greatly simplifies design and investment decisions.

"Only as Necessary" Investment Strategy

The SBB is making investments in rolling stock and infrastructure (in their motto) **'only as necessary'** to establish reliable timed transfers at hubs.

If, for example, hub stations are spaced one hour apart, and the running time between two cities is currently 56 minutes (leaving four minutes for station dwell and transfer time), then no investment is needed for an hourly timed-transfer to work reliably. However, if two cities are 65 minutes apart, then for the timed transfer to work, it is necessary to invest just enough to cut nine or so minutes from the running time. Investing 'only as necessary,' means starting with the least expensive improvement and then adding more expensive investments until the time transfers function reliably. Possible investments include new sidings to improve meets and passes, new rolling stock (e.g., tilting trains), signaling improvements, etc. If this is still not enough, then major investments are needed, such as route alignment changes (including tunneling) or station reconstruction changes (such as adding new platforms or lengthening platforms).

Project proponents will always claim to be investing only as necessary, but with a pulsed-hub network we have for the first time a precise criterion—invest only enough to establish reliable timed transfers at the hubs. Consequently, we know exactly, not only whether a proposed investment is adequate, but also whether it is still insufficient.

In summary, the pulsed-hub-network-and-invest-only-as-necessary strategy is a proven fundamental tool and approach to organizing public transportation. Moreover, the pulsed-hub network concept is understandable by the public, with the Swiss plan surviving two critical tests by the voters.

Iterative Planning and Design Approach

The pulsed-hub network planning and design process is iterative, in contrast to the traditional process of successively narrowing the study/design focus in order to deliver a project. The traditional process begins with a regional-level systems study to select and prioritize corridors, then an alternatives analysis/major investment/environmental review to select the appropriate project for a corridor, followed by final project engineering. However, since traditionally the transit schedule is developed only after basic engineering decisions have already been made, critical schedule connections may be missed. In contrast, the pulsed-hub network approach focuses on the coherence of system as a whole—a system able to serve a many-centered region.

Since all components of a pulsed-hub network interact with each other, designing a pulsed-hub network requires successive iterations—while using as tools the schedule map, modular time-distance diagrams, and 'only as necessary' investment criteria described above. Key decisions in the iterative process include the following.

- Identify hub locations that are both network junctions and land-use centers. The ideal hub location is an existing downtown rail station that is already a transit focal point. Green-field sites are problematical, since a critical mass of land-uses within walking distance may not develop.
 - Select a base headway. Hubs can be spaced at some multiple of one-half the base (mid-day) headway.
 - Select a link mode, which is a function of speed, capacity, schedule reliability and the existing mode (if any).

- Balance travel demand per link with the base headway, routings, mode and consist sizes. May need peak-period trippers.
- Select hub station design with respect to the transfer walk times and route dwell/schedule recovery times.
- Balance hub station dwell/schedule recovery times between transfer times and through passenger wait times.
- Distinguish full hubs (where trains/buses from all directions wait for transferring passengers), from partial hubs (where some trains/buses wait and others do not) and from directional hubs (with timed-transfers between only certain directions).
- Balance operating costs with the span (the service hours for each day of the week) of the repeating clock-face pulse schedule.
- Balance capital costs of infrastructure and rolling stock with reliable timed-transfers at hub pulses.

In planning/designing a pulsed-hub network, the first phase is complete, when, after a number of iterations, the base headway, key hub locations, and major hub-to-hub routes/modes are selected. The second phase is complete when the initial projects have been identified and prioritized.

BAY AREA PULSED-HUB NETWORK – ILLUSTRATIVE CONCEPT

Based on existing routes and schedules, on future plans and prospective studies, and on discussions with Bay Area transit planners and engineers, an illustrative pulsed-hub network plan (Illustrative Plan) was developed.^(4,5,6,7,8,9) (A. Zahradnick and R. Downing of Golden Gate Transit; J. Allison and D. Kutrosky of Capitol Corridor, A. Flemer and D. Kimsey of MTC; B. Capp of VTA light rail; R. Oto, C. Goodrich, R. Wier and D. Maxie of Caltrain; and W. Theile and D. Leonard of BART.)

Figure 5 shows the Illustrative Plan for the greater San Francisco Bay Area. It is not a final plan, but an illustration of how, using the existing and proposed public transport components, the pulsed-hub network strategy is able to maximize connections, both physically and schedule-wise, to best serve the public.

The running times in the Illustrative Plan are either current scheduled times, or projected travel times based on planned improvements. As required for some hub pulse timings, further small running time improvements were assumed based on engineering judgment. The plan includes: the existing BART, Caltrain and Capitol Corridor rail lines; the planned BART extension to San Jose; the proposed Sonoma, Marin, Rapid Transit District (SMART) corridor using the Northwestern Pacific right of way; and the proposed rail connection across the Dumbarton Rail Bridge. Also, the whole plan would integrate smoothly with the proposed California Corridor High-Speed Rail plan.

Travel Times

The Illustrative Plan pulsed-hub network will save travel time for many trips, especially for longer and midday trips requiring transfers. Two examples:

- For midday trips between Redwood City and downtown Berkeley, prior to the opening of the BART Extension to the San Francisco International Airport the trip took three transfers and a total trip time of 120 minutes. With the new Millbrae Caltrain/BART Station, the trip takes two

transfers for an estimated 96 minutes travel time. With the Illustrative Plan, using Caltrain express service and BART and with a timed-transfer at Millbrae, the two-transfer trip would take an estimated 81 minutes, or a similar time via the Dumbarton Rail Bridge with one transfer at Union City.

- Between Menlo Park and California State University, Hayward, a midday trip would take today about 110 minutes with three transfers. In the Illustrative Plan it would take about 85 minutes, also with three transfers.

Hub Locations

In Switzerland, existing downtown train stations provide obvious pulsed-hub locations. The Illustrative Plan starts with three obvious pulsed-hub locations, which are or were downtown train stations: Diridon Station in San Jose, the San Rafael Transit Center, and the Capitol/Amtrak Station in Sacramento. Additional hubs would be the joint BART/Capitol Corridor station in Richmond and the new joint BART/Caltrain station in Millbrae. The Dumbarton Rail Bridge connection adds hubs at the downtown Redwood City Caltrain Station, and the Union City BART Station. Other hubs that fit into the pulse timing include the downtown Capitol/Amtrak Stations in Martinez stations, the downtown Mountain View VTA LRT/Caltrain, and the Santa Rosa SMART station. Unfortunately, the strong San Francisco Bay ferry system (which operated prior to the opening of the San Francisco Bay Bridge) inhibited the development of downtown rail stations in the core cities of San Francisco and Oakland. The Illustrative Plan includes a new hub station in Oakland to connect BART with the Capitol Corridor and proposed California High-Speed Trains. However, the Illustrative Plan does not include a pulsed-hub in San Francisco, since the needed running time between the pulsed-hub at the Millbrae Caltrain/BART station and any downtown San Francisco station, would require major investment to reduce curvature and faster speeds than Caltrain's current 79 mph maximum speed.

Base Headway

The selection of a common base headway for the network as a whole entails a compromise between the different optimal headways for each pair of hubs. (The optimal headway between each hub pair is a function of the distances between the hubs, the travel speed and schedule reliability of the hub-to-hub link modes, the transfer times at the hub stations, and the ridership demand). Also, the selected base headway cannot be too different from existing transit service headways without significantly increasing operating costs.

For the Illustrative Plan, the selected base headway is 30 minutes for the inner part of the Bay Area and 60 minutes for intercity service to Sacramento. These headways are based on existing schedules and future plans (funded and unfunded) by the various agencies, plus any additional service that appears to be warranted from either a patronage point of view or to make the pulsed-hub network function properly, as follows.

- The current BART 15-minute peak and midday service headways mesh evenly with a 30-minute base headway. Moreover, 74 percent of the 312 midday bus routes currently serving BART stations have headways that mesh evenly with a 30-minute base headway.
- The proposed Caltrain 30-minute headway service levels for both local and express services are ultimately achievable, and combined they would match the 15-minute BART service at Millbrae.

- Hour headways are projected for the Capitol Corridor, after completion of the planned improvements, both funded and unfunded (9). In addition, there are plans for supplemental Capitol service to improve peak service to 30-minute headways.
- The Dumbarton Bridge rail service is assumed to be have 30-minute headway service to match the Caltrain service at Redwood City and the Capitol service at Union City.
- Golden Gate Transit has a 30-minute hub pulse for buses at the San Rafael Transit Center, and in the current plan the SMART trains would match this pulse during the peak period.

Timed-Transfers and Schedule Reliability

Since timed transfers require schedule reliability, the first investments for a pulsed-hub network should focus on improving reliability rather than speed. BART has the best rail service schedule reliability in the Bay Area. The Illustrative Plan invests in reliability improvements for Caltrain and the Capitol Corridor, so that they can join BART as partners in the pulsed-hub network.

BART

The Illustrative Plan restores the BART cross-platform timed-transfers between the Richmond-Fremont and Colma-Pittsburg/Bay Point lines, and improves transfers at the Bay Fair Station between the Dublin/Pleasanton line and the trains running to and from Fremont. The throughput capacity of the Oakland Wye, used by all lines, constrains any other changes in the schedule. The schedule changes are based on an estimate of the travel time improvements associated with the proposed signal system upgrade, plus schedule coordination between BART and Caltrain at the Millbrae Station.

The Illustrative Plan assumes a new BART station in Oakland in the north end of Jack London Square, with direct connections to the Capitol Corridor trains and proposed California Corridor High-Speed Trains.

Currently BART operates all lines with 15-minute headways during the day (plus some peak trippers) and 20-minute headways on nights and weekends. The 20-minute nighttime headways are required because BART uses single-track running between crossovers in order to bypass track maintenance, but in the oldest parts of the BART system the crossovers are spaced too far apart for any headway less than 20 minutes. In the Illustrative Plan, BART's contribution to support the pulsed-hub network would be to maintain the same 15-minute headways for days, nights and weekends. This change would provide better service for BART riders, and provide a consistent schedule for establishing timed-transfers between BART and all connecting operators. Constructing additional crossovers would allow 15-minute nighttime headways. The approximate cost for an estimated ten additional crossovers is \$250 million, and \$8 million annually in additional operating costs (in 2001 dollars) for the 15-minute headways.

Caltrain

Caltrain is currently constructing four-track sections in three locations in order to allow express trains to bypass local trains. The Illustrative Plan modifies one of the timetables developed in planning the express train service (see Figure 6). In the revised schedule, the local trains, instead of waiting about eight minutes in a siding south of Redwood City for the expresses to pass, would wait about five minutes at a new multi-track Redwood City Station. This station, located halfway between San Francisco and San Jose, would function as a pulse-hub with cross-platform transfers between Caltrain local and express trains and with Dumbarton Bridge trains.

In the Illustrative Plan the Caltrain express and local services, each with a 30-minute headway, would arrive at Millbrae Station approximately 15 minutes apart. This would enable a timed-transfer pulse with the 15-minute headway BART trains. A similar 15-minute pulse timing for Caltrain at Mountain View Station would improve connections with the Santa Clara Valley Transit Authority (VTA) Tasman LRT line.

In order for the Caltrain commuter railroad to function effectively in a pulsed-hub network, it needs to eliminate the major sources of schedule deviation: the hold-out rule, the use of wayside lifts for handicap boarding, and bicycle loading, as described in the following list.

- Caltrain currently has 12 hold-out rule stations, where a passenger can walk across the two sets of tracks. A passenger wanting to cross the tracks runs the risk, after waiting for one train to pass, of not seeing the second train on the other track; thus, the hold-out rule keeps a second train from entering a station and until the first clears. Eliminating the hold-out rule requires a grade-separated walk access with either a fence between the two tracks or a center platform. Caltrain has an on-going program to eliminate hold-out rule stations.
- To speed both handicap and bicycle boarding, Caltrain is adding mini-high platforms at express train stations to be level with the new low-floor tri-level cars (with an entrance 22 inches above top of rail), with the one car per train designated for handicap use. The conductor operates a drawbridge to close the gap between the one-foot gap between the car and the platform required for freight train clearance. The older gallery cars have bus-style handicap lifts, which take over a minute to operate. One way to speed handicap and bicycle boarding would be to have at least one low-floor car per train and mini-high platform at all stations. Unfortunately, as currently configured, the low-floor cars are not compatible with the existing fleet, and so need to run in separate trains. Therefore, in order for all trains to have level handicap boarding, either the new or old cars would need to be reconfigured so they can work together, or a new fleet would have to be purchased. In the long-term, purchasing a new fleet is feasible, because the current plan to electrify the line requires new electric multiple unit (EMU) cars (D. Maxie, unpublished data).

Dumbarton Bridge Rail Service

The proposed Dumbarton Bridge Rail Service plan estimates a 35-minute rail travel time between the Union City and Redwood City stations, with three intermediate stops (D. Maxie of Caltrain, unpublished data). In order to obtain a reliable less-than-30-minute running time, track and station improvements will be required, including: a separate track and platform for the Dumbarton service at both end stations; track improvements already identified for Capitol Corridor improvements, and possibly a track flyover at the Newark junction.

Capitol Corridor Service

The Illustrative Plan Capitol Corridor running times are based on the Amtrak Intermediate Capital Improvement Plan (9) with the following additional improvements: a Union City Station and new Shinn connection to use the "Western Pacific" tracks; eliminating the Hayward station, which is lightly used and does not connect with BART; a new Oakland station north of Jack London Square, that is approached via a tunnel to avoid the current in-street running through the Jack London Square area; and unspecified improvements between the new Oakland station and the Richmond station.

The Capitol Corridor intercity trains operate on freight railroad tracks. The two main sources of schedule unreliability are delays at two drawbridges (over the Sacramento River and the Carquinez Straits between Martinez and Benicia), and interference from freight trains. A conceptual estimate to replace the drawbridges was under \$300 million (9). Four ways to reduce freight train interference include the following.

- Increase infrastructure capacity in order to improve operational reliability, which the Capitol Corridor Joint Powers Board (CCJPB) has been doing. The CCJPB has additional plans, subject to negotiations, for yet further improvements.
- Pay bonuses to the freight railroad for on-time performance, something the CCJPB is exploring.
- Construct CCJPB-owned tracks, such as described in the Capital Corridor Vision Projects for an exclusive San Jose to Oakland passenger corridor for a conceptual estimate of \$200 million.(9)
- Operate the freight railroad on a schedule with timed windows for freights as well as passenger service. The modular scheduling of a pulsed-hub network makes it much easier to establish scheduled freight train windows. Moreover, a modular schedule significantly simplifies freight railroad negotiations into a potentially win-win situation. First, for the worst schedule module of the day, or week, identify a window for each freight and passenger service, and then run simulation models to exactly define the minimal investment needed to provide reliable passenger service. This public investment provides the freight railroad with improved reliability during all hours and improved capacity during off-peak hours.

SMART Corridor

Since the proposed Sonoma Marin Area Rail Transit (SMART) system will own and operate its own system on the Northwest Pacific rail right-of-way, it should maintain excellent schedule reliability. Although current plans call for peak-period-only service, the congestion along the parallel US 101 Freeway suggests that all-day service may be warranted between San Rafael and Santa Rosa.

California High-Speed Rail

The current conceptual operating schedule for the proposed California Corridor High-Speed Rail service indicates a two-hour timing for a non-stop express train between the Los Angeles Union Station and the San Jose Diridon Station. Both stations are ideal downtown hub locations and also key nodes in the high-speed and regional rail networks, plus they are hubs for existing and proposed bus, light rail and rapid transit service. (At Diridon, the proposed high-speed service would split with service running up the West Bay to San Francisco or up the East Bay to Oakland.) The critical point is that the exact two-hour schedule (travel time plus dwell time) allows for synchronized clock-face pulse schedules at both stations, enabling them to serve as gateway timed-transfer hubs for their respective regions, and linking the entire state into a timed-transfer system.

DISCUSSION AND FINDINGS

Institutional Issues

This study deliberately avoided addressing the potential institutional problems associated with the multiple transit agencies in the greater Bay Area. Rather it focused on what might be called

the maximally feasible cooperative arrangement for the public transport system of the region as a whole—a route structure, schedule and hub stations, where all components support and enhance each other. Consequently, the study focused on developing a technical solution that integrates the various agencies into a fully cooperative regional system that also potentially maximizes the patronage of each operator. For only after a viable regional solution has first been shown to be technically possible, cost effective, and desirable, will it be possible to garner the political will to make any necessary institutional and funding changes. That said, I offer two observations concerning possible institutional arrangements.

- All the public transportation agencies in California depend upon public subsidies, since none can pay even for their operating and maintenance costs out of the farebox. A state law allocating a certain percentage of the subsidies to transit coordination with other agencies should effectively induce cooperation. The law should include some fare sharing arrangement that rewards both carriers for passenger trips served by both.
- Schedule coordination for metro regions with multiple transit agencies becomes easier with a pulsed-hub network, since each agency would find it advantageous to schedule their service to match the hub pulses. This process automatically schedules timed-transfers between the routes of neighboring agencies.

In the long term, politicians and policy makers will only make the necessary institutional changes and find the necessary funding, if the regional public transport integration plan is understood by the voters and the public at large. In the short term, however, the plan needs to be accepted by the existing public agency staffs, policy makers and users. Thus, the multiple transit agency situation presents a fundamental planning dilemma of vision versus practicability—a system plan needs to be bold enough to capture and sustain public interest, yet able to be implemented via incremental modifications acceptable to existing agency staffs and riders. I suggest a pulsed-hub network potentially provides the vision, boldness and practicality needed for acceptance.

Station Design and Transit Network

The tighter the walk distances at hubs and the shorter the dwell time, the more effective the pulsed network. On the other hand, long transfer walk times may make a timed-transfer untenable due to long dwell times. For example, the over a 1000-foot distance between the proposed downtown San Francisco train station at the current Transbay Terminal Site and the BART and MUNI Metro trains under Market Street is too long for a timed transfer. The Diridon Station in San Jose connecting Caltrain, the Capitols, ACE, VTA light rail is becoming a critical hub in the Bay Area. With the proposed high-speed train connection to Los Angeles it would become the gateway to the Bay Area, with the potential to be a world-class facility. For the network to function at its best and maximize patronage, it is important that the proposed BART extension station be tightly connected to Diridon Station, to allow timed transfers between BART and the other services.

Hub Locations and Hub-to-Hub Running Times

In a pulsed-hub network with a repeating clockface base headway, the hub locations and hub-to-hub travel times are tied together in relatively rigid time/distance relationships. The hub spacing south of Oakland along the Caltrain and Capitol routes works well with 30-minute service and 79

mph top speeds, since the hubs are about 30 minutes apart. North of Oakland, however, the 30-minute base headway would not work as well, since the travel time between Oakland and the next hub at the Richmond BART/Capitol station, is about a 20 minutes. Reducing the travel time to under 15 minutes in order to develop a proper pulse at the Richmond station would require significant investment.

Notice that the Illustrative Plan does not include a full pulse at the Richmond hub. The Plan with timed-transfers provides 45-minute service between Oakland and San Rafael, and between Oakland and Martinez, but not between San Rafael and Martinez, which would take an hour with a layover at the Richmond station. However, the distances between the Richmond hub and the San Rafael, Martinez and Oakland hubs are not that great, so theoretically it is possible to make all these connections in 15 minutes. To make Richmond a full pulsed-hub would require the following. The least expensive would be express buses using HOV lanes (some elevated) between Richmond and San Rafael. A tunnel between Richmond and Martinez (or between Richmond and Hercules) is contemplated by the Capitol Corridor, since it would significantly shorten the travel time between Oakland and Sacramento. Improving the rail connection between Richmond and Oakland may require a tunnel under West Oakland plus grade separations, either from the new joint BART/Capitol/High Speed Train station north of Jack London Square assumed in the Illustrative Plan, or from a Capitol/High Speed Train terminal under the 12th Street BART Station, which is one of the options in the proposed California High Speed rail plan.

Pulsed-Hub Network Design Envelope

This study is a step towards defining the design envelope within which the pulsed-hub network approach is appropriate in terms of the following parameters.

- *Headways* For urban areas with close-headway transit routes, timed transfers are not needed. On the other hand, for areas with longer headway routes (30 minutes or greater) such as much of suburbia and inter-city travel, then timed transfers are a significant benefit. The pulsed-hub network approach with a repeating base headway brings isolated timed-transfer hubs into a coherent system.
- *Hub-to-hub distances* The study suggests for rail service that the longer the distances between hubs the easier it is to plan and construct a pulsed-hub network; whereas the closer the distances between hubs that capital costs may increase significantly.
- *Speed* Establishing reliable timed-transfers at pulsed-hubs is more important than speed. However, in a large region, using the fastest mode between hubs can capture choice riders. Speed also 'stretches' the network so that feeder bus routes are less likely to meander as they do in some timed-transfer bus systems. To obtain the necessary running time to meet the timed-transfer pulses, may require reducing the number of stops along a line. Consequently, hubs should be at destinations with mixed land use and walking trips. If possible, green-field sites should be avoided (10).
- *Scalability* The high-speed train integration into the Illustrative Plan emphasizes the point that a pulsed-hub network can start small and expand as new hubs and new services are developed and integrated into the network.

In summary, the study suggests that a metropolitan or larger region is an appropriate geographic area to implement the pulsed-hub network strategy.

ACKNOWLEDGEMENT

The research for this paper was funded by an IR&D grant from Parsons Brinckerhoff.

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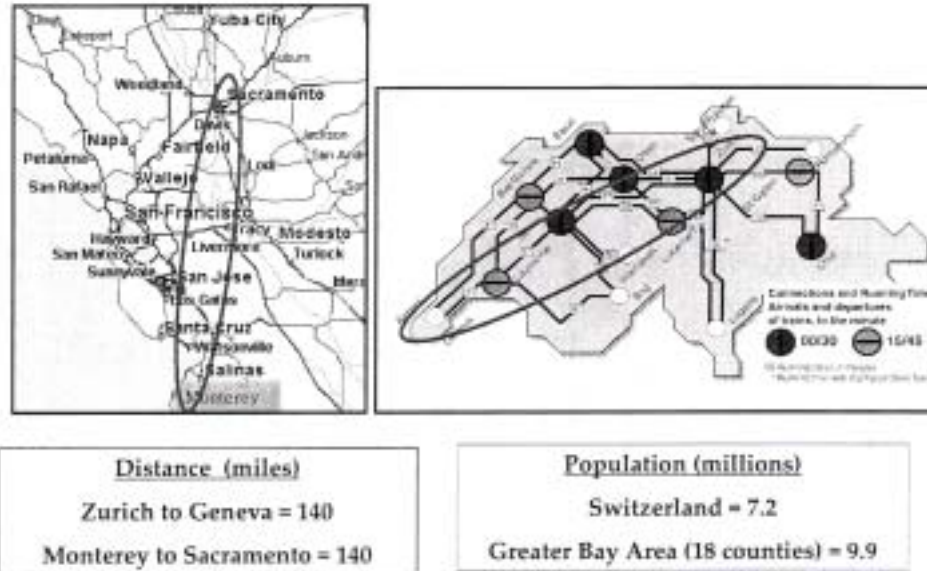


FIGURE 1 Greater San Francisco Bay Area and Switzerland Comparison

DRAFT 3-20-07

Pulsed Hubs Tie Public Transport Network Together
(Example: One cycle of a 30-minute Base Headway module)

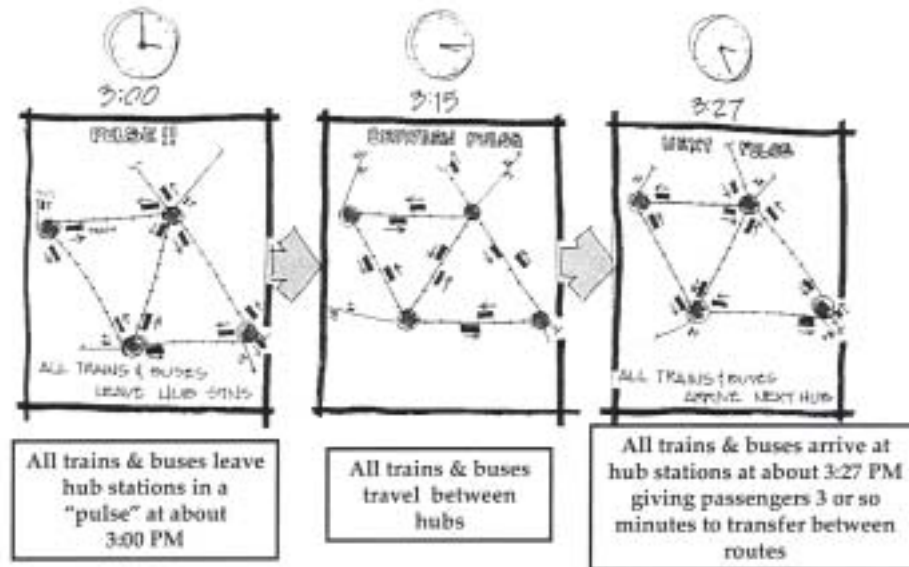


FIGURE 2 Pulsed-hub Network Concept

DRAFT 3-20-03

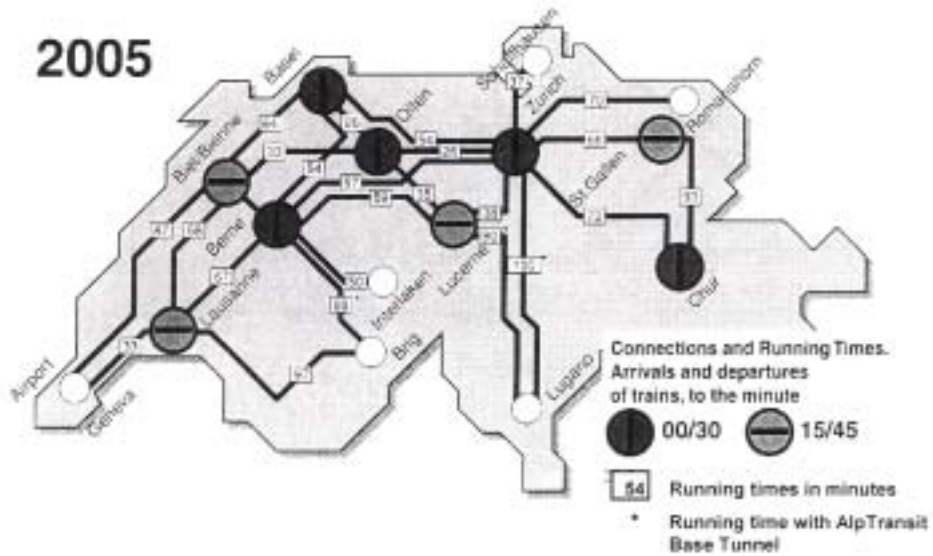


FIGURE 3 Swiss Country-wide Pulsed-Hub Network Schedule Map for 2005 (Rail+Bus 2000 Plan)

DRAFT 3-20-03

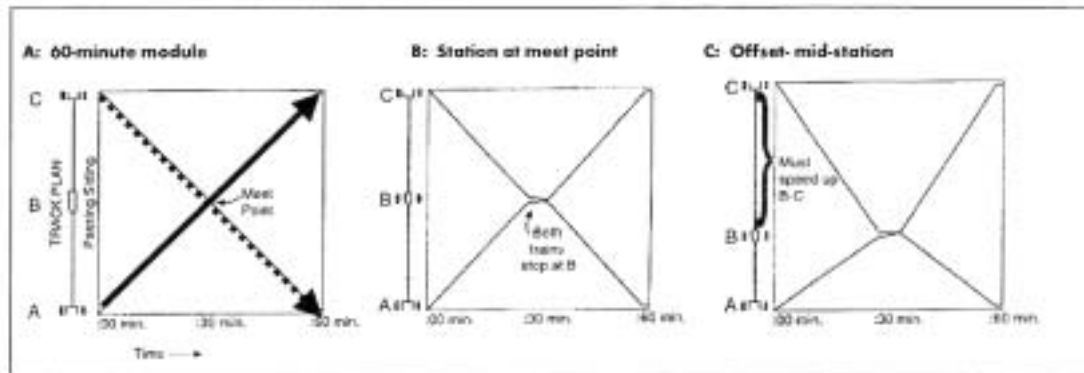


FIGURE 4 Modular Time-Distance Diagrams

DRAFT 3-29-03

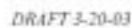


FIGURE 5 Illustrative Bay Area Pulsed-Hub Network Schedule Map

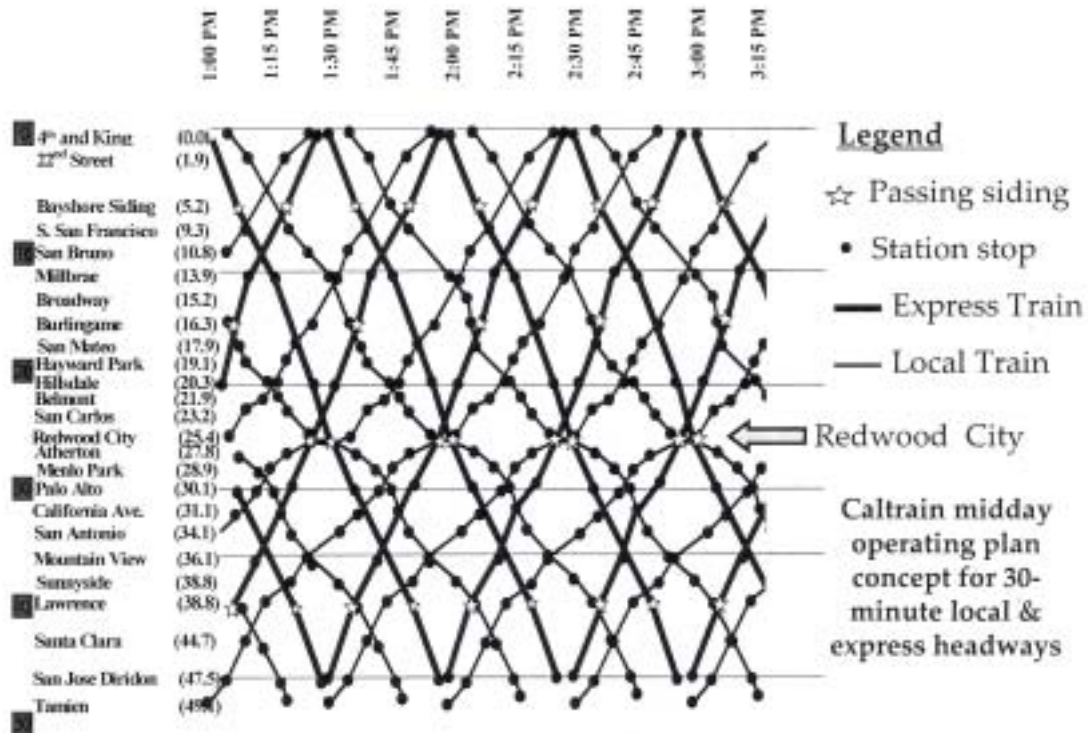


FIGURE 6 Caltrain Express and Local Operating Plan Concept with Passing Siding at Redwood City. In the Illustrative Plan Redwood City becomes a hub, with cross platform transfers between locals and expresses running the same direction, and walk connections to the Dumbarton Rail Bridge train, trains running the other direction, and the SamTrans bus transit center.

DRAFT 3-20-03

223 Donner Avenue
Livermore, CA 94551-4240

27 December 2005

Regional Rail Project

The former SP Mulford (L) line between Elmhurst and Newark is 4.35 miles shorter, has 8 fewer road crossings (most with far less auto and pedestrian traffic), and much less curvature than the D/DAB lines via Decoto and Centerville.

I urge you to eliminate any expenditures on the D/DAB segments, such as the proposed Union City intermodal project and any expenditure at the Centerville station. Put the money instead into double tracking (with CTC) the Mulford line – as money allows even as far as Santa Clara. Provide also for the future California High Speed Rail in that corridor.


If HSR bonds pass (I doubt they will due to the circuitous alignment along 99 instead of I-5 where it really should be), HSR from San Jose to Oakland might continue north on the Bay side of I-880 instead of going via Elmhurst.

Relocating BART between the Washington Street portal and the trans-Bay tube (including the West Oakland station) to a line back of the post office on the water side of the rebuilt I-880 freeway would allow a really good intermodal station near Magnolia. (Before the freeway was rebuilt I proposed this as a way to slash freeway costs, but it still is a good idea.) Running HSR from San Jose to Magnolia this way should be considered as a possible alternative to going up the peninsula; BART connections would serve more patrons better than a transportation Taj Mahal in downtown San Francisco.

If HSR bonds pass and HSR follows Caltrain on the peninsula, planning should include total grade separation, with BART at grade between Santa Clara and Millbrae. A four-track right of way would accommodate two BART tracks and two standard gauge.

Another dream I have is for a BART subway from Civic Center up Oak Street and along Masonic toward the Golden Gate. This would enhance BART trans-bay reliability in case of stoppages in the Mission Corridor. It could well start as simply an Oak Street tail track.

I have enclosed also a copy of my 26 December letter to BART re at-grade extensions to Antioch, Livermore, and Alum Rock in San Jose.


Robert S. Allen
BART Director (1974-1988)
(925) 449-1387

223 Donner Avenue
Livermore, CA 94551-4240

26 December 2005

BART Board of Directors

Re: Extension Planning, General

Please plot *real* BART to Livermore (Greenville/ACE) and Antioch (Century Blvd or even Hillcrest); also to San Jose (Alum Rock) *if at no cost to BART*. The routes are obvious for these *at grade* extensions: to Livermore in a widened I-580 median and into the former SP line toward Tracy; to Antioch in a widened Rt 4 median; and atop the former WP roadbed and a rebuilt bridge over US 101 to Alum Rock station at Julian /28th near SJSU and downtown San Jose.

I understand that BART at grade (in 2002 \$) cost about \$12 million/mile, plus stations, cars, grade separations, other structures, yards/shops, right of way, and implementation (planning, engineering, environmental analysis/mitigation, etc.). Yards, shops, and the costly subway in downtown San Jose could well be deferred for these extensions.

Little structural work or environmental cost is needed for BART extended in a freeway median. The few overpasses on an Alum Rock extension, at 13 ½' ATR (above top of rail), should each cost a small fraction of overpasses at 22 ½' ATR over operating freight railroads (typically about \$10 million each).

Please get current unit cost detail for BART at grade in a freeway median; also atop an abandoned railroad. Guestimate also the cost for cars and stations, right of way, and to modify structures for each extension. I suspect the per-mile current cost for BART at grade (track, power, control, K-rail/fencing) has risen – perhaps to \$15-\$25 million. Preserving the routes can save hugely on the cost later.

Antioch and Livermore are by far the largest BART-taxed cities with no BART rail; Livermore even lacks a good bus connection to BART. For decades they have paid taxes for BART – as well as for SF Muni and AC Transit that will never serve them. San Jose – by far the largest city in northern California – has funding and should come at no cost to BART.

Planning should proceed now on this regional package of three at-grade BART extensions along with intermodal connections to ACE, eBART (as far east as possible), and a Caltrain-type shuttle between Tamien and Alum Rock atop the old WP. Such a package could really unify our region, give people a viable commute alternative at a very modest cost.



Robert S. Allen
BART Director, 1974-1988
(925) 449-1387

cc: Regional Rail Project
FYI
RSA

6cc: 20 Dec 05 to
Regional Rail Project.
FYI, RSD

223 Donner Avenue
Livermore, CA 94551-4240

6 October 2005

Board of Directors
Santa Clara Valley Transportation Authority

Re: Getting BART to San Jose – Soon and Cheap!

My suggestions for BART to San Jose have been repeatedly ignored. This plan could do an effective interim job years sooner and for billions less than what we have seen to date.

1. Defer the costly subway!

Subways are fantastically expensive. (Just ask LA!) They should be avoided, bypassed, or as short as possible. They are justified only in a patronage-rich city core with no viable detour.

Double-track BART at grade costs about \$12 million/line-mile (2003 \$), plus land, cars, stations, structures, grade separations, etc. BART to Dublin (mostly in a freeway median) cost about \$36 million/mile. BART to SFO (mostly in subway over my strong objections) cost about five times as much per mile. At grade on the former SP roadbed, it could have cost about 1 billion dollars less.

The subway in San Jose will help get BART to Santa Clara, but it could be deferred. BART to Alum Rock comes to about 10-15% of the entire project cost.

2. Keep BART *at grade* on the old WP roadbed south of Montague.

I understand UP plans to cease operations on the old WP south of Montague and is already dismantling part of the line. The old WP track roadbed, compacted over many decades, would make an ideal sub-grade for BART with little more work. Seven grade crossings would need to be separated.

Freight railroad grade separations on the state-wide CPUC priority list cost typically about \$10 million each. They require clearance of 22 ½ feet ATR – above top of rail. Bridges over BART need only 13 ½ feet ATR, meaning much less earthwork and structural cost – and one need not protect train operations during construction. Thus the cost for the 7 separations should be much less – likely under \$5 million each.

3. Run BART over US 101 to Alum Rock (Julian/McKee/28th).

BART on the existing or a rebuilt bridge over busy US 101 would tell the world that BART had arrived in San Jose. Ending BART at Berryessa seems almost insane. The bridge to Alum Rock would be a real BART signature.

Alum Rock lies close to SJSU, downtown, and existing transit infrastructure. Light rail transit from Alum Rock to Diridon/Arena could serve them very well and at low cost until the subway comes later.

4. Build a major intermodal/parking facility at Alum Rock.

Light rail from the proposed Santa Clara Street line and easy US 101 freeway access at McKee Road assure a major parking and intermodal facility success. Heavy parking fees could help fund this facility.

5. Preserve the old WP alignment to Tamien for future rail.

This historic rail corridor could link BART at Alum Rock with Caltrain at Tamien. A minor line change near the stadia would allow good transit service to sporting events and additional parking during non-game times. A Caltrain or other rail shuttle would close the rail loop around SF Bay even before the subway is funded and built. Frequent service pulsed with BART trains at Alum Rock, could link BART even beyond Santa Clara – with Sunnyvale, Mountain View, and Palo Alto.

6. Run BART trains for now just to the Concord line.

Caltrain provides excellent service to the Peninsula and San Francisco. There is no need now for BART in that market. Trains to BART's Concord line would greatly lessen I-680 congestion and serve a real need. Starting BART San Jose service with this one route would nearly halve operating costs and yet provide very decent transit service by good connections to all of BARTland.

7. Slash the length of the subway.

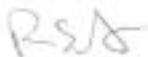
Rather than in a costly subway under Stockton Street, BART belongs at grade north of the Arena/Diridon station in a widened Caltrain right of way. (It would have to dip under the DA wye, but otherwise it could be almost entirely at grade.)

I suggest that you reconsider having the subway under San Fernando Street - with one station right beside SJSU - rather than under Santa Clara Street, and swing it into a widened Caltrain right of way near Diridon/Arena.

8. Protect ROW and plan for a 4-track Caltrain line.

For decades SP jealously protected right of way for a third track along the peninsula. Making the goal a 4-track line would allow either a BART or Caltrain local commute service on two tracks and bullet/HSR/freight service on the other two. Aggressive land acquisition and designing new overheads for four tracks, a service road, and other longitudinal facilities would pay huge dividends for future rail and transit, including Caltrain, BART, and California High Speed Rail. Plans should include ultimate total grade separation between San Jose and San Francisco.

Not only could this plan get BART to San Jose much sooner and at far less cost, but it could greatly enhance transit usage throughout the region. I would be happy to work with your staff for its implementation.



Robert S. Allen
BART Director, 1974-1988
Retired, SP Engineering/Operations
(925) 449-1387

cc: Policy Advisory Board, Silicon Valley Rapid Transit Corridor
BART Board of Directors
Metropolitan Transportation Commission

bcc 20 Dec 05 to Regional Rail Project

To: Your Turn, The Times

223 Donner Avenue
Livermore, CA 94551-4240
12 November 2005

Get Real BART to Antioch and Livermore!

BART at grade in a freeway median costs ^{2002 \$} ~~(2003\$)~~ about \$12 million/mile, plus stations, land, structures, cars, shops, yards, and "implementation". That is for the BART line itself – track, power, train control, and K-rail. (Current figures are not available, but I suspect they would run about \$15 million/mile today.)

The largest BART-taxed cities with no BART rail are Antioch and Livermore. Each lies just a few miles along an over-crowded freeway from BART. Route 4 and I-580 are both crying for widening, **and that widening should include a median wide enough for BART.**

Given a wide-enough median, a real BART line could reach Hillcrest in Antioch for about \$120 million and Greenville Road in Livermore for about \$180 million, both plus stations, cars, and implementation. BART in a freeway median would need little extra for structures, and shops/yards could be added later beyond Hillcrest and a Greenville ACE intermodal along the railroad right-of-way.

eBART beyond Hillcrest and ACE beyond Greenville make sense. (Of these rail connections, ACE is commuter rail, while eBART would be transit, which needs double track.)

The proposed eastbound HOV lane along I-580 is a wasteful use of Alameda County money to benefit Central Valley commuters, and it would have to be relocated when BART comes. The money should instead be used to widen I-580 eastward from the end of BART to accommodate both BART and HOV lanes in **both** directions.

Route 4 has already been widened enough to allow BART to Railroad Avenue in the median. In any event, real BART – not eBART – should run between Bay Point and Pittsburg. The cost would be minimal, and all East contra Costa commuters would benefit. But widening Rt 4 for real BART to Hillcrest should be top priority.

Robert S. Allen
(915) 449-1387
BART Director, 1974-1988
Retired SP Engineering/Operations

223 Donner Avenue
Livermore, CA 94551-4240

13 December 2005

Policy Advisory Committee
eBART Partnership

Widening State Route 4 allows double track rail in the median from the existing BART at Bailey Road at least through Railroad Avenue in Pittsburg. You voted December 8 to check out rail in a widened median to Century Blvd. and possibly Hillcrest Avenue.

I urge you to consider making that double track *real* BART instead of for DMU – or at least to cost out the two options.

Extending *real* BART one station to Railroad Avenue (3 miles) or two stations to Century Blvd. (5 miles) at \$12 million/mile (2002 \$) plus stations, cars, right of way, and "implementation" (planning, engineering, environmental analysis/mitigation, etc.) should not cost a whole lot more than double track for DMU. (Rail transit really needs double track.) No yard or shop is needed – just a rail extension like the existing line.

A BART/eBART intermodal, designed *before* construction to be that, should cost less than retrofitting an existing station. The eBART line might just share a common station, with platform and tracks outside the freeway on the north side rather than in the median.

The freeway median is made to order for BART. No grade crossings. No public trackway access. Little roadway work and few structures. No cutting up of land parcels.

Hopefully Route 4 will be improved soon with a median wide enough for BART to Hillcrest in Antioch, by far the largest BART-taxed city with no BART rail. But *all of East County* – miles closer to *real* BART – would gain from using that Route 4 median for *real* BART, with the eBART transfer as far east as possible.

You (like eastern Alameda County) have paid heavy BART taxes for decades. $\frac{1}{4}$ of your $\frac{1}{2}\%$ "BART" sales tax even now flies over the hills to help fund AC Transit and SF Muni that will **never** serve east county. Your taxes have subsidized big city transit opulence for many years. You've waited long enough for the crumbs!

I hope you'll check this out with current unit costs. Insist on getting a breakout of costs that is realistic, not using wild estimates and old figures from AD 2002.


Robert S. Allen
BART Director (1974-1988)
(925) 449-1387

cc: eBART Partners (BART, CCTA, Contra Costa County, Tri Delta Transit, MTC, USDOT,
and Cities of Antioch, Brentwood, Oakley, and ~~Brentwood~~
Caltrans District 4
Regional Rail Project

Re: 20 Dec 05 to Regional Rail Project
F44 R001

223 Donner Avenue
Livermore, CA 94551-4240

14 November 2005

Dana Cowell, Deputy District Director
Transportation Planning and Local Assistance
Caltrans, District 4
PO Box 23660
Oakland, CA 94623-0660

Re: BART to San Jose, Soon and Cheap

Bijan Sartipi's November 7 letter listed you as contact re my October 6 letter to VTA, copy to Governor Schwarzenegger on this subject.


The main focus of my proposal is to

1. Defer the costly subway underneath Downtown San Jose;
2. Build BART to *Alum Rock at grade* on the old WP and on a reconstructed bridge *over* US 101;
3. Grade separate roads crossing the BART alignment; and
4. Preserve the old WP ROW beyond Alum Rock for a standard gage Caltrain or other rail shuttle to Tamien.

Alum Rock (near 28th-McKee-Julian-US 101) would be the tentative end of the BART line, with a major parking and local transit intermodal facility close to SJSU and downtown San Jose. It has good access to the entire Silicon Valley, which Berryessa totally lacks.

The savings would be dramatic – with costs of about 10%-15% of the entire project. BART could reach San Jose years sooner. Light Rail connections at Montague/Capital and Alum Rock could serve the region very well – until further funding is found for the very costly subway.

I wrote Governor Schwarzenegger to suggest this way to bring regional rail transit to the largest city in Northern California soon and cheap, and to show that voters *can* get their decisions to bear fruit. Let the subway come later!



Robert S. Allen
(925) 449-1387
BART Director (1974-1988)

bcc 20 Dec 05 to Regional Rail Project,
FTA Road

223 Donner Avenue
Livermore, CA 94551-4240

14 November 2005

Senator Dianne Feinstein
United States Senate
Washington, DC 20510-0504

Dear Senator Feinstein:

Re: BART to San Jose, Soon and Cheap

Thanks for your November 10 reply to my proposal. I wrote you because of major *federal* funding for this proposed BART extension.

FTA (US DOT) has played a major role in the planning. The dictate for an MOS (Minimum Operating Segment), I understand, came from this *federal* agency.

My October 6 letter to VTA – of which I sent you a copy – protested this VTA-proposed MOS. Ending BART at Berryessa as they proposed makes no sense. It should continue *at grade* a short distance further to Alum Rock. This station (at 28th-Julian-McKee by US 101) is near local transit to SJSU and downtown San Jose and has easy auto access to the entire Silicon Valley.

The BART bridge I proposed over US 101 would dramatically show that BART had come to San Jose – far more than VTA's proposed subway under US 101.

By deferring the costly subway, BART could reach San Jose for about 10-15% of the cost projected for the entire project. Light rail and a possible Tamien-Alum Rock Caltrain-type rail shuttle could provide a viable link to Caltrain until more money for a subway appeared on the horizon.

San Jose – by far the largest city in Northern California, and a major regional employment hub – can and should get BART soon. My plan is a doable MOS.

The federal role in BART to San Jose is significant, especially for the much more costly portion involving subway. Hence I have given copies of my October 6 VTA letter to Norman Mineta and to FTA in Washington and San Francisco. (Neither they nor VTA have even acknowledged receipt – which makes me grateful to you.)

Thanks again for your reply, but this is indeed a federal as well as a state matter.



Robert S. Allen
(925) 449-1387
BART Director, 1974-1988

handwritten
510.464
7673

December 5, 2005

To: Ashley Nguyen
MTC
101 8th Street
Oakland, CA 94607

From: Tom Reitter, Vice Mayor, Livermore

Subject: **Comments for Regional Rail Workshop**

Councilmember Marj Leider has already commented on BART to Livermore. I will focus my remarks on high speed rail. As the Livermore City Council has never discussed this issue, however, please consider these my own comments.

To be truly useful, high speed rail must also carry freight to reduce the number of trucks, not only in the Bay Area, but also on the freeways between southern and northern California.

To be politically acceptable, high speed rail must be quieter than current trains. I understand that the decision has been made to go with steel on steel, but I encourage you to give serious consideration to magnetically levitated trains currently being developed at Lawrence Livermore National Laboratory and General Atomic in San Diego. This version of maglev train is simpler and cheaper than either the German or Japanese versions. Maglev trains are much quieter because they are levitated above the tracks while in motion. They are expected to be able to reach 300 mph. A prototype is being tested at GA in San Diego county. Congress has appropriated money for a demonstration project in California, PA. (This will connect two separate portions of a college campus up a hill too steep for buses.) The maglev train is now being investigated by the Los Angeles Port Authority for shuttling shipping containers. The town of Lake Oswego is interested in maglev trains as a quiet connection between their town and downtown Portland, OR. This type of maglev train may be the 21st century solution. Contact people: Richard Post, LLNL, (925) 422-9853 or Sam Gurol, GA, (858) 455-4113.

I am concerned about the alignment through the Tri-Valley consuming open space or farm land in this area. I need to know where you think this will fit, because I can't think of any non-destructive location.

A Tri-Valley station is critical for local support. If we have to drive to Oakland, San Jose, or San Francisco to catch the train, that isn't much different from driving to the airports. I suggest the proposed Greenville Road intermodal station in northeast Livermore at the foot of the Altamont Pass. Here it could seamlessly connect to other modes of transportation, such as BART, ACE, and local bus service, and be next to high density housing. Express bus service from Contra Costa county could also be provided. This would create a truly extraordinary system that would significantly enhance mobility.

Finally I have to ask you to ensure that BART to Livermore is included as a component of the regional rail study. The taxpayers of Livermore have been paying for over 40 years and many feel that a connection is long overdue. BART to Livermore is critical to supporting the land use plans that Livermore has made to aid mobility in the I-580 corridor.

Thank you for your attention to these issues.

TRAC

Train Riders
Association
of California

1008 Tenth Street #276
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95814-3502

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trac@comsoft.com



December 16, 2005

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Mr. Doug Kimsey
Project Manager, Bay Regional Rail Study
Metropolitan Transportation Commission
101 8th Street
Oakland Ca 94107

Subject: Regional Rail Study

Dear Mr. Kimsey:

Fifty years ago cars were carried across the Bay on boats, freeways were rare and trains ran on the Bay Bridge. Since that time the automobile has gradually taken over and it's now time to change course. The Regional Rail Study looks ahead fifty years. It therefore represents a unique opportunity to set things straight. TRAC regards the Bay Regional Rail Study as a means through which the Bay Region's transportation system can be brought gradually back into balance.

The Train Riders Association of California (TRAC) welcomes the opportunity to participate in the Study. Since many of our members live and work in areas that will be affected by its results, TRAC has a strong interest in helping ensure that these results are both practical and worthwhile. Attached is a TRAC Position Paper with suggestions relating to General Criteria, Project-specific Selection Criteria, Proposed Study Elements and General Principles:

Thanks for your stewardship of this landmark study. You may count upon TRAC's continuing interest and participation in the Study, which we regard as vital to the future well being of the Greater Bay Area.

If you have questions or wish to discuss any of the above proposals please contact Michael Kiesling, the Chair of TRAC's Bay Region Task Force, or Gerald Cauthen, TRAC's President.

Sincerely yours,

Alan C. Miller
Alan C. Miller,
Executive Director

cc Dan Leavitt
Gary Patton
Tom Matoff

TRAC is a non-profit California corporation dedicated to improving passenger rail service in California.

Bay Regional Rail Study Initial Suggestions and Recommendations

General Criteria

- o The selected alternative should serve the overall objective of minimizing the necessity for....and length of... automobile trips
- o It should result in a reduction of total Bay Region VMT below today's level by at least 1/4% a year for at least the 50-year study period
- o It should avoid allocating scarce transportation dollars to wasteful or inappropriate projects promoted by special or parochial interests

Project-Specific Selection Criteria

- o Projects should meet or exceed FTA's New Starts Cost-effectiveness and other Standards
- o They should serve transit-oriented development either through infill in urban centers or brownfield development
- o They should make maximum and optimal use of existing rail right-of-way, where it is able to support reliable, higher-speed passenger service.
- o They should include acquisition of new rail ROW where required to support reliable 125 + mph commuter rail service and/or high speed rail service
- o In any event they should be conducive to regular and reliable long term passenger rail service
- o They should conform to a pulsed system, such that transfers between trains, key bus lines and ferries involve minimal wait time, or no wait time where the headways are the same
- o They should avoid locating stations inaccessibly or unattractively in the middle of freeways

Proposed Study Elements

- o Eliminate the ill-conceived BART-to-San Jose extension from consideration. If that is not possible, include at least three Study alternatives that feature replacement of the BART extension with a commuter rail service operating on existing ROW

- o In all alternatives, include both the Transbay Terminal project and a suitable BART/Railroad intermodal station in the Union City/Fremont area, both of which are vital to the building of an effective transit network in the Bay Area
- o With respect to the Transbay Terminal, determine patronage both with and without the underground ped-ramp connection between the mezzanine levels of the Transbay Terminal and either Embarcadero or Montgomery Station
- o Include a speeded-up and more frequent Capitol Corridor Service, with additional trackage as required to eliminate interference between passenger trains and freight trains
- o Include an electrified Caltrain Service, extended into the Transbay Terminal
- o Include extending ACE service into San Francisco
- o Include an efficient BART/Mainline transfer station in downtown or West Oakland
- o Consider the effect of depressing or elevating the section of passenger and freight rail line that passes through downtown Oakland
- o Consider the financial and other benefits of raising bridge tolls to \$5 for the purpose of supporting transit services
- o Provide an "early action" list of high priority projects deserving of immediate State funding

General Principles

- 1) Specific steps should be taken to make certain that rail development does not encourage more sprawl. For this reason the new and expanded rail lines should serve transit-oriented housing and other development created by infill within urban centers and "brownfield development" (redevelopment of outmoded retail, commercial, warehouse and factory districts). Potential for brownfield development along rail lines and the creation of new activity nodes that constitute environmentally responsible development should be weighed against the pros and cons of increasing densities in historic town centers. Special consideration should be given to municipalities committed to clustering their new development around rail stations.
- 2) With respect to high-speed Bay Area access, it is essential that the selected alignment be the one most beneficial to the most people, based upon an impeccably fair and objective assessment of the situation
- 3) If a northerly high-speed Bay Area access alignment is chosen it should incorporate a 125 + mph commuter rail service
- 4) For cost estimating purposes it is essential that the high-speed rail track sections be defined carefully. For the Southern Alignment the section should extend from Chowchilla, the San Joaquin Valley junction point, to Redwood City. For the Northern Alignment the section should extend from Manteca, its San Joaquin junction point, to Redwood City and from Fremont to San Jose. The cost of the Chowchilla to Manteca section should be excluded from the cost of the Northern Alignment because the Chowchilla to Manteca section will have to be constructed in any event to serve Sacramento.

- 5) Given the excessive traffic congestion that already plagues Bay Region urban centers, there should be no more expansion of Bay Region freeways and expressways
- 6) A single regional fare structure should apply to all transit services. Multi-ride fares should be discounted
- 7) For modeling purposes, free shuttle services between major transit nodes and major employers should be assumed
- 8) For modeling purposes, free employee parking should be replaced with free employee transit passes
- 9) For modeling purposes, the effect of regional express bus lines, ferry routes and local train and bus lines must be taken fully into account. This would include regional buses in the Transbay Corridor (unless a second transbay tube is assumed) and in the I-680 corridor, among others. Connecting important centers with regional, other express and local buses in a carefully coordinated manner is logical and should not be excluded from the modeling analysis.
- 10) To achieve valid modeling results, rail system capacities must be accurately defined. If, as is widely believed, BART's capacity in MTC's current model is "unconstrained", this flaw must be corrected.
- 11) Ferry service between railheads should also be modeled as part of the rail network. This proposal applies particularly to SMART's railhead in Larkspur.
- 12) Alternatives should be evaluated based upon life-cycle costs, not just capital costs.
- 13) During the 50-year Study period, all passenger rail equipment in use today will be replaced once or twice. Therefore, the study must consider and model both vehicles that comply with today's FRA standards and those that don't, such as the state-of-the-art vehicles in current use all over Europe.
- 14) Excepting for units operating on freight railway lines, passenger trains should be level-loading. Except for BART they should conform to standard dimensional and loading criteria, thus allowing the widest number of worldwide suppliers to bid for equipment orders.
- 15) Multiple rail modes within a single corridor, such as the Fremont-to-San Jose Corridor, must be modeled in a manner designed to show the effect of each existing and contemplated service on each other service. Duplicative services should be avoided whenever possible.
- 16) A intense and comprehensive negotiation, participated in by transit properties, governmental officials, rail vehicle suppliers, environmentalists, passenger rail advocates, freight operators and others, will be required to bring about the adjustment of current mainline dispatching practices needed to permit both freight trains and passenger trains to operate reliably and efficiently on common tracks or in common ROW.
- 17) Despite dispatching improvements, there will be instances where it will be necessary to consider acquiring portions of privately owned freight rail ROW for exclusive passenger rail use. In such cases, it will be essential to balance the capital costs of these acquisitions against the interference and other problems associated with joint freight rail/passenger rail operations.

- 18) The rail development and expansion contemplated in the Study must be organized and laid out as part of a seamless, region-wide system, such that funds are allocated and administered on behalf of a single regional network, as opposed to being controlled and managed separately by "Caltrain", "ACE", "BART" and other individual properties. Transit patrons don't really care very much about who owns the trains, buses or boats they use, but they do care about how well the system functions as a system.
- 19) For similar reasons it is essential that high speed rail services are developed within the regional framework, meaning that in certain sections there should be both 125 + mph commuter rail service and high speed rail service operating within the same high speed right-of-way.
- 20) To assure an accurate basis of comparison, it will be necessary to develop realistic estimates of future automobile operating costs, bridge tolls, hot lane costs, parking costs and availability and fare levels. All of these variables are currently unknown but reasonable assumptions will have to be made if there is to be any hope of producing realistic "out-year" results.



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Founded in 1977 by

DAVID PACKARD

December 15, 2005

Dan Leavitt
High Speed Rail Authority
925 L Street, Suite 1425
Sacramento, CA 95814

Dear Mr. Leavitt,

On behalf of the Silicon Valley Leadership Group (SVLG), I write to express our views on which alignments are appropriate to study in the Bay Area EIR/EIS process.

By way of reference, the Silicon Valley Leadership Group was founded in 1978 by David Packard of Hewlett-Packard and represents 200 of the Silicon Valley's most respected employers. SVLG members collectively provide nearly 250,000 local jobs, or one of every four private sector jobs in Silicon Valley.

SVLG supports the study of the Pacheco Pass alignment and other alternatives that do not pass through the Henry W. Coe State Park or through the Isabel and San Antonio Valleys just north of Coe Park. The negative environmental impacts of choosing a route that passes through Coe Park or the Isabel and San Antonio Valleys would be significant, and for those reasons we do not support including those alignments in the EIR/EIS study.

Although we know the Altamont Pass alignment will most likely be studied in the Bay Area EIR/EIS, we believe the Authority's decision to reject the Altamont Pass alignment—after thorough consideration—was the right one. For operational reasons alone, this route is not a viable option. The Altamont Pass would necessitate a three-way split to serve Oakland, San Francisco and San Jose, resulting in operational costs twice that of the other options under consideration. It would also require trains to pass San Jose and then turn south (from Modesto) to reach Silicon Valley—increasing travel times between San Jose and Southern California by as much as 35 minutes. To not maximize the frequency to one of the largest population centers in the region—San Jose—does not make sense for the economic viability of the line.

We look forward to the completion of the Bay Area specific EIR/EIS. Thank you for your consideration of our remarks.

Sincerely,

Carl Guardino
President & CEO

cc: Bay Area Regional Rail Plan

Silicon ValleyHigh-Speed Rail Coalition

December 15, 2005

Dan Leavitt
High Speed Rail Authority
925 L Street, Suite 1425
Sacramento, CA 95814

Dear Mr. Leavitt,

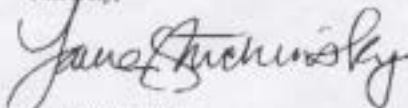
On behalf of the Silicon Valley High Speed Rail Coalition, I write to express our strong support for the inclusion of the Pacheco Pass alignment, and variations of that alignment, in the California High Speed Rail Authority's Northern Mountain Crossing Study.

The Silicon Valley High Speed Rail Coalition strongly urges the High Speed Rail Authority to give thorough consideration to the Pacheco Pass, and variations of that alignment, as the route by which high-speed trains would enter the San Francisco Bay Area. We urge the CHSRA to drop from consideration any route that would bisect the Isabel and San Antonio Valleys, just north of Coe Park. Such a route would have significant negative impacts on the sensitive wildlife corridors in this remote region of the Mount Hamilton Range.

Although we know the Altamont Pass alignment will be studied in the Bay Area EIR/EIS, we would like to take this opportunity to restate our opposition to this alignment. We believe the environmental and operational reasons that the Authority gave for rejecting this alignment in the statewide EIR were sound and still stand.

Thank you for your hard work on this important project. We look forward to the completion of the Bay Area specific EIR/EIS and appreciate the opportunity to share our views.

Sincerely,



Laura Stuchinsky
Director of Transportation and Land Use
Silicon Valley Leadership Group

cc: Bay Area Regional Rail Plan

Transmitter Mike Honda
Congressman Zoe Lujarin
Peter Scherer Eliseo Aguila
Pete Scherer Abel Maldonado
Robert Mordor Steven Selous
Assembly Member Kenneth Cahn
Assembly Member Jim Gatto
Assemblymember Al Chaffetz
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Associated General Contractors
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County Chamber of Commerce
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Peninsula Open Space Trust and
former member of the California
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